N00217.003384
HUNTERS POINT
SSIC NO. 5090.3

October 4, 1996

Cal/EPA

Department of
Toxic Substances
Control

760 Heinz Avenue
Suite 200
Berkeley, CA
94710-2737

Pete Wilson
Governor

James M. Strock
Secretary for
Environmental
Protection

Engineering Field Activity, West
Naval Facilities Engineering Command
Attn: Mr. Richard Powell [1832]
900 Commodore Drive
San Bruno, California 94066-5006

Dear Mr. Powell:

IDENTIFICATION OF STATE APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS FOR THE PARCEL D FEASIBILITY STUDY, HUNTERS POINT ANNEX

The Department of Toxic Substances Control (Department) received the above request letter on September 3, 1996. AS you may know, the process of ARARs solicitation is an iterative one, as articulated in the section 7.6 (a) of the Federal Facility Agreement (FFA). To that end, we believe further refinement of ARARs will be likely.

In accordance with the FFA, the Department forwarded your letter to several state agencies/departments for their input and consideration. The enclosed are: A) Department's table of ARARs; B) List of Non-respondents ; and C) responses from Integrated Waste Management Board and Bay Area Air Quality Management District. Please note that the Regional Water Board, SF BCDC and Department of Fish & Game have submitted their ARARs on several occasions.

Sincerely,

Cyrus Shabahari
Project Manager
Office of Military Facilities

Enclosures

RECEIVED
OCT 0 9 1996

cc: US EPA, Region IX
Attn: Anna-Marie Cook [H-9-2]
75 Hawthorne Street
San Francisco, California 94105

ENCLOSURE A

California Code of Regulations
Division 4, Environmental Health,

Under this division, the Department of Health Services has set chemical specific values for drinking water

---

Chapter 15
Domestic Water Quality and Protect potential drinking waters of California Monitoring Regulations

---

Article 4 Primary Standards for Inorganics along with monitoring and compliance

---

Article 5 sets restriction and standards for radiation in the groundwater

---

Article 5.5 sets specific organic chemical values along with sampling of treated water

---

Article 12 Best Available technologies for treating water to meet MCL values-

---

Article 16 Secondary Drinking Water Standards set secondary MCLs, Laboratories

Title 22, Division 4.5
Environmental Health Standards for Management of Hazardous Waste

Identification and listing of hazardous wastes This chapter identifies those wastes which are subject to regulation as hazardous wastes under this division and which are subject to the notification requirements of Health and Safety Code section 25153.6]	Chapter 11	Article 1	General; purpose and scope, definition of waste and hazardous waste, exclusions, requirements for recyclable Materials and contaminated containers 66261.1 - 66261.7
		Article 2	Criteria for identifying Characteristics of Hazardous Waste 66261.10
		Article 3	Characteristics of Hazardous Waste 66261.20 - 66261.24
		Article 4	List of RCRA Hazardous Wastes 66261.30 - 66261.35
		Article 5	Categories of Hazardous Waste 66261.100-66261.126, Appendix I through XII

Standards Applicable to generators of hazardous waste	Chapter 12	Article 1	Applicability [66262.10 - 66262.12]
		Article 2	A generator who transports, or offers for transportation, hazardous waste for off-site transfer, treatment, storage or disposal shall prepare a Manifest. [66262.20 - 66262.23]
		Article 3	Pre-Transport Equipment are to be included for packaging, labeling, marking, placarding, and accumulation time 66262.30 - 66262.34
		Article 4	Record keeping and Reporting. The article establishes requirements for the generator to keep records of manifests 66262.40 - 66262.47
		Article 5	This article establishes requirements applicable to exports of hazardous waste to a foreign country from the State. Except to the extent 40 CFR section 262.58 provides otherwise, a primary exporter of hazardous waste shall comply with the requirements of this article. 66262.50 through 66262.57

Standards for owners and operators of hazardous wastes transfer, treatment, storage and disposal facilities	Chapter 14	Article 2	Requirements apply to the owners and operators of hazardous waste facilities. These requirements are for inspection ,Personal Training, General Requirements, Location Standards, Construction Quality Assurance Program, Seismic and precipitation design standards 66264.10 - 66264.25
		Article 3	Preparedness and Prevention apply to the owners and operators of hazardous waste facility. These are related to design and operation, required equipment, testing and maintenance of equipment, access to communication or alarm system, required aisle space and informing the local authorities. 66264.30 - 66264.37
		Article 4	Contingency plan and emergency procedures apply to the owners and operators of hazardous waste facilities. The owners and operators shall have contingency plan for the facility. 66264.50 - 66264.56
		Article 5	Manifest System, Record keeping, and Reporting The regulations in this article apply to owners and operators of both on-site and off-site facilities 66264.70 - 66264.77
		Article 7	Closure and Post-Closure Requirements apply to the owners and operators of hazardous waste management facilities. 66264.110 through 66264.120
		Article 10	Requirements that apply to the owners and operators of facilities that use Tank Systems[66264.190 - 66264.199]
		Article 11	Regulations in this article apply to owners and operators of facilities that use surface impoundment to treat, store or dispose of hazardous waste. 66264.220 through 66264.231
		Article 12	Regulations in this article apply to owners and operators of facilities that store or treat hazardous waste in piles unless exempt. 66264.250 through 66264.259

	Chapter 14	Article 13	Regulations in this article apply to owners and operators of facilities that treat or dispose of hazardous waste in land treatment units. 66264.270 through 66264.283
		Article 14	Regulations in this article apply to owners and operators of facilities that dispose of hazardous waste in landfills. 66264.300 through 66264.318
		Article 15	Regulations in this article apply to owners and operators that incinerate hazardous waste. 66264.340 through 66264.315
		Article 15.5	Corrective Action for Waste Management Unit (CAMU) 66264.500 through 66264.553
		Article 27	Regulations in this article apply to owners and operators of facilities that treat, store or dispose of RCRA hazardous waste by process vents associated with distillation, fraction, thin-film evaporation, solvent extraction, or air steam stripping. 66264.1030 through 66264.1036
		Article 28	Regulations in this article apply to owners and operators of facilities that treat, store or dispose of RCRA hazardous waste, unless exempt. 66264.1050 through 66264.1065
Recyclable of Hazardous Waste	Chapter 16	Article 2	Regulations that apply to the recycling Hazardous Materials (Recyclable Hazardous Wastes). 66266.3 through 66266.12

Land Disposal Restrictions	Chapter 18	Article 1	Identification of hazardous wastes that are restricted from land disposal. 66268.1 through 66268.9
		Article 2	Schedule for Land Disposal Prohibition and Establishment of Treatment Standards. 66268.10 through 66268.29
		Article 3	Prohibitions on Land Disposal. 66268.30 through 66268..38
		Article 4	Treatment Standards. 66268.40 through 66268.48
		Article 5	Prohibitions on Storage of Restricted Wastes. 66268.50
		Article 10	Land Disposal- Prohibitions-Non-RCRA Wastes 66268.100
		Article 11	Treatment Standards- Non-RCRA Waste Categories. 66268.105 through 66268.114

ENCLOSURE B

List of Non-Respondents to the letter from the Department dated September 6, 1996.

1. State Historical Resources Commission
   Department of Parks and Recreation
   P.O.Box 942896
   Sacramento, California 94296-0001

2. Department of Pesticides Regulation
   3065 Richmond Parkway, Suite 106
   Richmond, California 94806

4. Office of Environmental Health Hazard Assessment
   2151 Berkeley Way, Annex 11
   Berkeley, California 94704

5. Wildlife Conservation Board
   801 K Street, Suite 806
   Sacramento, California 95814

6. S. F Bay Conservation & Development Commission
   30 Van Ness Avenue, Room 2011
   San Francisco, California 94102

7. California Department of Fish & Game
   20 Lower Ragsdale Drive, Suite 100
   Monterey, California 93940

8. Regional Water Quality Control Board
   2101 Webster Street, Suite 500
   Oakland, California 94612

ENCLOSURE C

Cal/EPA

California
Environmental
Protection
Agency

Integrated
Waste
Management
Board

8800 Cal Center Dr.
Sacramento CA 95826
(916) 255-2200

Pete Wilson
Governor

James M. Strock
Secretary for
Environmental
Protection

September 16, 1996

Mr. Cyrus Shabahari
Project Manager
Department of Toxic Substances Control
Region 2
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2737

Subject: Applicable or Relevant and Appropriate Requirements (ARARs) for Hunters Point Shipyard, San Francisco

Dear Mr. Shabahari:

This letter is in response to the Department of Toxic Substance Control's (DTSC) letter dated September 6, 1996, requesting ARARs for Parcel D at Hunters Point Shipyard, San Francisco, California. The request was received by the Integrated Waste Management Board September 11, 1996.

Previously we submitted ARARs to the DTSC in a letter dated May 17, 1996, for Parcel B at the Hunters Point Shipyard. The ARARs have not changed since then and are included in the attached *OMF ARARs FACT SHEET #4*, for your information. Note that to date we have not received any technical documents to review for the Hunters Point Shipyard.

If you have any questions regarding this letter, please feel free to call me at 916-255-3840.

Sincerely,

Albert M. Johnson
Closure and Remediation Branch
Permitting and Enforcement Division

Attachment

cc: Tim Ong, San Francisco Department of Public Health, LEA

California Environmental Protection Agency
Department of Toxic Substances Control

Site Mitigation Program
Office of Military Facilities
(OMF)

OMF ARARs FACT SHEET # 4

Spring 1996

The California Integrated Waste Management Board's (CIWMB) statutory and regulatory authority at solid waste disposal sites

INTRODUCTION

A major area of the California Integrated Waste Management Board's (CIWMB) involvement at military facilities has been in the identification, interpretation and implementation of the CIWMB's statutory and regulatory requirements as they pertain to closure, postclosure maintenance and consolidation of solid waste disposal sites at military facilities. This fact sheet should: 1) raise awareness regarding the CIWMB's jurisdiction over solid waste disposal sites; and 2) improve coordination with the CIWMB by ensuring timely inclusion of the CIWMB in the request for Applicable or Relevant and Appropriate Requirements (ARARs) and the full disclosure of the conditions at the site to allow for timely integration of the CIWMB's requirements.

The Department of Toxic Substances Control (DTSC) has the role of coordinating the concerns of regulatory agencies and the identification of their statutory and regulatory requirements. As such, it is the Remedial Project Managers (RPMs) responsibility to ensure that these requirements are adequately addressed by the appropriate military branches. The following questions and answers are designed to assist the RPMs in understanding the CIWMB's jurisdiction over issues related to solid waste disposal sites at military facilities:

1. What are the CIWMB's statutory and regulatory requirements pertaining to closure, postclosure maintenance and consolidation of solid waste disposal sites?

The CIWMB has the following general statutory and regulatory authority:

- **Statutory authority**: The Integrated Waste Act of 1989, as embodied in Public Resources Code (PRC) Section 40000 et seq.
- **Regulatory authority**: Title 14, California Code of Regulations (14 CCR), Division 7.

The CIWMB is mandated by statute to coordinate all actions regarding solid waste disposal sites with state and federal agencies (PRC 43301). These actions include approval of closure activities and other activities related to solid waste disposal sites's excavation, consolidation, and postclosure maintenance (PRC 43505 and 43506). Furthermore, pursuant to the PRC, the

CIWMB has adopted regulations for the design, operation, maintenance, closure, and ultimate reuse of solid waste disposal sites. These regulations are contained in 14 CCR, Division 7, Chapter 3, Minimum Standards for Solid Waste Handling and Disposal, Article 7.1-7.8 Disposal Site Standards (PRC 43021 and 43509). These closure regulations may be applied to a solid waste disposal sites containing small quantities of hazardous waste as the final cover standards meet Class II criteria and may afford adequate containment.

Note: Solid waste includes all putrescible and nonputrescible solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, dewatered, treated, or chemically fixed sewage sludge which is not hazardous waste, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes (PRC 40191(a)). A solid waste disposal site is any location were solid waste has been disposed of (PRC 40122) - this definition includes identified landfills as well as other locations where solid waste has been disposed of.

2. How is the regulatory overlap and duplication of effort between the CIWMB and the Regional Water Quality Control Board (RWQCB) minimized?

Although the CIWMB has clear regulatory authority regarding solid waste, this authority does not extend to water quality aspects of solid waste. For example, 14 CCR 17782 incorporates Title 23, Chapter 15, Article 5 "Groundwater monitoring Requirements." This is clearly under the authority of the RWQCB and will not be included as a CIWMB ARAR. Other 14 CCR sections such as final cover (14 CC 17773) incorporates Chapter 15 requirements by reference. In this case, the RWQCB may want to review the final cover design with regard to the water quality aspects, such as limiting precipitation infiltration. The CIWMB will review other health and safety concerns such as the need to limit landfill gas emissions and the cap's ability to provide adequate containment of the waste during the postclosure maintenance period or reuse (PRC 43506).

3. How and when should the CIWMB be involved at military installations?

CIWMB's staff provide oversight to ensure that their statutory and regulatory requirements are addressed and they also provide consulting services for landfill Operable Units (OUs), and other OUs where solid waste has been disposed. With regard to military facilities, the CIWMB regulations apply to closure and postclosure maintenance of solid waste disposal sites and to excavation and consolidation (14 CCR 7.1-7.6) of solid waste. To assist RPMs, the CIWMB has compiled a list of potential ARARs that have been used in approved landfill Records of Decision (RODs) and Feasibility Studies (FSs). The state ARARs are summarized in table 1. "State ARARs for solid waste disposal site closure and postclosure maintenance" and table 2. "State ARARs for solid waste disposal site consolidation". The attached tables, which are also available on computer disk in WordPerfect, summarize applicable 14 CCR regulations that contain substantive requirements for solid waste disposal sites. To help determine site specific

ARARs to ensure compliance with Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Section 121 (d), and the NCP, the CIWMB's staff will need to review relevant section of the RI Report and other pertinent documents, and possibly visit the site. Specific ARARs activities include:

1. Identification of initial ARARs (see attachments);
2. Collection of information to clarify and possibly reduce initial ARARs based on site specific conditions;
3. Site-specific and remedy-specific interpretation and application of ARARs;
4. Concurrence that ARARs will be met by the proposed remedy; and
5. Assurance that design and implementation comply with ARARs.

ARARs need to be accurately and completely identified and interpreted at the earliest possible point (i.e., during the Remedial Investigation (RI) scoping) according to the National Contingency Plan (NCP) and the Base Realignment and Cleanup (BRAC) Plans. Therefore, RPMs are encouraged to contact the CIWMB during the RI scoping and no later than the final FS and should continue to work closely with the CIWMB throughout the remediation phases to obtain information on data needs and to ensure compliance with CERCLA. Some of the major areas of concern during solid waste disposal sites' closure, postclosure maintenance and consolidation include:

Landfill Gas:

Several gases are typically generated by decomposition of organic materials in a landfill. The composition, quantity, and generation rates of the gases depend on such factors as refuse quantity and composition, refuse placement characteristics, age of the disposal unit, landfill depth, refuse moisture content, and the amount of oxygen present. The principal gases generated by volume are carbon dioxide, methane, and occasionally, hydrogen sulfide. Trace volatile organic compounds, such as trichloroethylene, vinyl chloride and benzene, can also be present in landfill gases, particularly at co-disposal facilities (areas where solid waste and, to a lesser extent, hazardous wastes have been co-disposed). Data generated during site characterization of landfill gases are used to determine the type of landfill gas monitoring and control that would be required. Data collection covers:

- Landfill gas characteristics, including composition, moisture content, quantity, temperature, and methane content. Common test methods for landfill gas characterization are ASTM method D-1945 for natural gasses and EPA's method TO-14 for trace gasses; and
- Measuring the presence of offsite combustible gases in concentrations > 5% measured as methane by volume, subsurface migration of combustible gases > 1.25% measured as methane by volume in and around structures, and surface emissions of trace gases that may pose a threat to public health and the environment.

Final Cover:

The CIWMB is involved in several issues related to the quality and integrity of the final cover. These include, but are not limited to:

- Ensuring that the design and construction of the final cover meet specific prescriptive or engineered alternative performance standards which include minimum thickness and quality of construction material.

- Ensuring that an adequate Construction Quality Assurance (CQA) program is being implemented and that proper testing is conducted for each component of the final cover. For example, a CQA program would include pass/fail criteria for barrier layers such as compaction test for soils or seam tests for flexible membrane liners (FML). The program would also address corrective measures to be taken if the CQA test fails such as soil recompaction or patching of FMLs.

- Ensuring that the design of the final site face provides for the integrity of the final cover both under static and dynamic conditions and control of run on and runoff.

- Ensuring that the design and construction of the slopes protect the integrity of the final cover and minimize soil erosion.

Postclosure Maintenance and Postclosure Land Use:

The CIWMB implements specific regulations for evaluating both postclosure maintenance and postclosure land use activities. The CIWMB's staff can provide postclosure landfill guidance to the RPMs to ensure that military facilities are developed in an environmentally sound manner.

Remedial Alternatives:

The CIWMB is involved in selecting the most practicable remedial alternative for solid waste landfills. Since CERCLA's inception in 1980, the remedial and removal programs have found that certain categories of sites have similar characteristics, such as types of contaminants present, types of disposal practices, or how environmental media are affected. Based on information acquired from evaluating and cleaning up those sites, the CERCLA program has developed presumptive remedies to expedite future cleanups. Presumptive remedies are preferred technologies for common categories of sites, based on historical patterns of remedy selection and the United State's Environmental Protection Agency (U.S. EPA) scientific and engineering evaluation of performance data on technology implementation. Containment has been established as the presumptive remedy for CERCLA municipal landfills. Additional guidance on the applicability of the presumptive remedy at municipal landfills will be provided in a future fact sheet.

If you have further general questions on the CIWMB's ARARs, or if you need a copy of the attached tables on computer disk, contact Pauline Batarseh, Interagency Coordination Unit, Office of Military Facilities, at 255-3603.

Attachments:

Table 1. State ARARs for solid waste disposal site closure and postclosure maintenance.

Table 2. State ARARs for solid waste disposal site excavation and consolidation.

Table 1

State ARARs for Solid Waste Disposal Site Closure and Postclosure Maintenace

Source	Standard, Requirement, Criterion, or Limitation	ARAR Status	Description	Comment	Associated Site
California Integrated Waste Management Act of 1989 PRC 40502 & 43020	14 CCR 17766 Chapter 3, Article 7.8 Disposal Site Closure and Postclosure Maintenance	Applicable	Emergency Response Plan (ERP): potential emergency conditions that may exceed the design of the site and could endanger the public health or environment must be anticipated. The events that the plan shall address include but are not limited to: vandalism; fires; explosions; earthquakes; floods; and other waste product releases. Response procedures for these conditions must be addressed in the RD/RA plans. This section does not apply to corrective actions under the ground water or gas monitoring provisions.	Closure or Postclosure Maintenance Standard of Title 14, CCR, Chapter 3, Article 7.8. Scope and Applicability pursuant to 14 CCR 17760.	For closing sites
California Integrated Waste Management Act of 1989 PRC 40502 & 43020	14 CCR 17767 Chapter 3, Article 7.8 Disposal Site Closure and Postclosure Maintenance	Applicable	Security at Closed Sites: all points of access to the site must be restricted, except permitted entry points. All monitoring, control, and recovery systems shall be protected from unauthorized access.	Closure or Postclosure Maintenance Standard of Title 14, CCR, Chapter 3, Article 7.8. Scope and Applicability pursuant to 14 CCR 17760.	For closing sites
California Integrated Waste Management Act of 1989 PRC 40502 & 43020	14 CCR 17773 Chapter 3, Article 7.8 Disposal Site Closure and Postclosure Maintenance	Applicable	Final Cover: the design and construction of the final cover must meet specific prescriptive standards of 23 CCR 2581(a). These include minimum thickness and quality of the construction material. If the prescriptive standard is not feasible then an engineered alternative that meets the preformance goals (i.e. limiting infiltration, controlling gas emissions, compatibility with reuse) can be proposed.	Closure or Postclosure Maintenance Standard of Title 14, CCR, Chapter 3, Article 7.8. Scope and Applicability pursuant to 14 CCR 17760.	For closing sites
California Integrated Waste Management Act of 1989 PRC 40502 & 43020	14 CCR 17774 Chapter 3, Article 7.8 Disposal Site Closure and Postclosure Maintenance	Applicable	Construction Quality Assurance (CQA): a CQA program must be designed and implemented. It must include specific parameters (and for some components specific testing methods) for each component of the final cover. For example, pass/fail criteria for compaction testing for soil barrior layer and seam testing for flexable membrane liners should be included with corrective measures for failed tests.	Closure or Postclosure Maintenance Standard of Title 14, CCR, Chapter 3, Article 7.8. Scope and Applicability pursuant to 14 CCR 17760.	For closing sites
California Integrated Waste Management Act of 1989 PRC 40502 & 43020	14 CCR 17776 Chapter 3, Article 7.8 Disposal Site Closure and Postclosure Maintenance	Applicable	Final Grades: the final grades for the covered landfill must meet grading standards provided in 23 CCR 2581, they must be appropriate to control runoff and erosion. A minimum of grade of 3% is required unless an effective system is provided for diverting surface drainage from covered wastes.	Closure or Postclosure Maintenance Standard of Title 14, CCR, Chapter 3, Article 7.8. Scope and Applicability pursuant to 14 CCR 17760.	For closing sites

State ARARs for Solid Waste Disposal Site Closure and Postclosure Maintenance

Source	Standard, Requirement, Criterion, or Limitation	ARAR Status	Description	Comment	Associated Site
California Integrated Waste Management Act of 1989 PRC 40502 & 43020	14 CCR 17777 Chapter 3, Article 7.8 Disposal Site Closure and Postclosure Maintenance	Applicable	Final Site Face: the design of the final site face must provide for the integrity of the final cover both under static and dynamic conditions.	Closure or Postclosure Maintenance Standard of Title 14, CCR, Chapter 3, Article 7.8. Scope and Applicability pursuant to 14 CCR 17760.	For closing sites
California Integrated Waste Management Act of 1989 PRC 40502 & 43020	14 CCR 17778 Chapter 3, Article 7.8 Disposal Site Closure and Postclosure Maintenance	Applicable	Final Drainage: the design of the final drainage system must control runon and runoff produced by a 100 year 24 hour storm event. If off-site channels cannot accomodate flow from a 100 year 24 hour event the opporator shall release the water downstream in a manner which shall not cause erosion or inudation of off site channels. If holding facilities are used they should be desingned and constructed so that they will not be overtopped during a 100 year 24 hour event.	Closure or Postclosure Maintenance Standard of Title 14, CCR, Chapter 3, Article 7.8. Scope and Applicability pursuant to 14 CCR 17760.	For closing sites
California Integrated Waste Management Act of 1989 PRC 40502 & 43020	14 CCR 17779 Chapter 3, Article 7.8 Disposal Site Closure and Postclosure Maintenance	Applicable	Slope Protection and Erosion Control: the design and construction of the slopes must protect the integrity of the final cover and minimize soil erosion.	Closure or Postclosure Maintenance Standard of Title 14, CCR, Chapter 3, Article 7.8. Scope and Applicability pursuant to 14 CCR 17760.	For closing sites
California Integrated Waste Management Act of 1989 PRC 40502 & 43020	14 CCR 17781 Chapter 3, Article 7.8 Disposal Site Closure and Postclosure Maintenance	Applicable	Leachate Control During Closure and Post Closure: leachate must be monitored, collected, treated, and discarded appropriately.	Closure or Postclosure Maintenance Standard of Title 14, CCR, Chapter 3, Article 7.8. Scope and Applicability pursuant to 14 CCR 17760. The state does not intend that subsurface leachate monitoring and collecting systems need to be added to existing landfills unless leachate production and/or accumulation is evident.	For closing sites
California Integrated Waste Management Act of 1989 PRC 40502 & 43020	14 CCR 17783 Chapter 3, Article 7.8 Disposal Site Closure and Postclosure Maintenance	Applicable	Gas Monitoring and Control During Closure and Post Closure: landfill gases must be collected and analyzed; the concentration of combustible gas at the landfill boundary must be 5% or less, trace gases must not be at levels that cause adverse health or environmental impacts.	Closure or Postclosure Maintenance Standard of Title 14, CCR, Chapter 3, Article 7.8. Scope and Applicability pursuant to 14 CCR 17760.	For closing sites

State ARARs for Solid Waste Disposal Site Closure and Postclosure Maintenance

Source	Standard, Requirement, Criterion, or Limitation	ARAR Status	Description	Comment	Associated Site
California Integrated Waste Management Act of 1989 PRC 40502 & 43509	14 CCR 18262.3 Chapter 5, Article 3.4 Closure and Postclosure Maintenance Plans	Relevant and Appropriate	Closure Plan: Provides the minimum substantive content requirements for closure plans for solid waste disposal sites. The contence include but are not limited to, a site plot plan, final grading countour maps, desing drawings for the final cover and environmental monitoring and control systems, and a discription of the monitoring and control systems , the sequance of closure with an implementation schedual.	Applies to solid waste disposal sites that received waste after January 1, 1988.	For closing sites
California Integrated Waste Management Act of 1989 PRC 40502 & 43509	14 CCR 18275 Chapter 5, Article 3.4 Postclosure Maintenance Plans	Relevant and Appropriate	Closure Certification: Provides the minumum substantive content requirements to obtain certification that the solid waste disposal sites has closed pursuant to state standards.	Applies to solid waste disposal sites that received waste after January 1, 1988.	For closing sites
California Integrated Waste Management Act of 1989 PRC 40502 & 43509	14 CCR 18265.3 Chapter 5, Article 3.4 Closure and Postclosure Maintenance Plans	Relevant and Appropriate	Postclosure Maintenace Plan: Provides the minimum substative content requirements for postclosure maintenance plans for solid waste disposal sites. The contence include but are not limited to persons responsible for postclsoure maintenace, as-built plans, monitoring tasks, O&M of collection and recovery systems and a discription of the intended postclosure land use.	Applies to solid waste disposal sites that received waste after January 1, 1988.	For closing sites
California Integrated Waste Management Act of 1989 PRC 40502 & 43020	14 CCR 17796 Chapter 3, Article 7.8 Disposal Site Closure and Postclosure Maintenance	Applicable	Post Closure Land Use: Site Closure Design shall show one or more proposed uses of the closed site or show development that is compatible with open space. Changes in postclosure land use must be approved by the appropriate State agency prior to implementation.	Closure or Postclosure Maintenance Standard of Title 14, CCR, Chapter 3, Article 7.8. Scope and Applicability pursuant to 14 CCR 17760.	For closing sites
California Integrated Waste Management Act of 1989 PRC 40502 & 43020	14 CCR 17788 Chapter 3, Article 7.8 Disposal Site Closure and Postclosure Maintenance	Applicable	Post Closure Maintenance: the landfill must be maintained and monitored for no less than 30 years following closure.	Closure or Postclosure Maintenance Standard of Title 14, CCR, Chapter 3, Article 7.8. Scope and Applicability pursuant to 14 CCR 17760.	For closing sites

14 CCR - California Code of Regulations, Title 14 ARAR - applicable or relevant and appropriate requirement ROD - Record of Decision RD/RA - remedial design/remedial action

Table 2

State ARARs for Solid Waste Disposal Site Excavation and Consolidation

Source	Standard, Requirement, Criterion, or Limitation	ARAR Status	Description	Comment	Associated Site
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 18222 Chapter 5, Article 3.2 Reports of Facility Information	Relevant and Appropriate	Report of Disposal Site Information: The planning and procedural requirements necessary to ensure that solid waste is handled and disposed in manners that protect public health and safety and the environment must be conducted.	Applies to operating solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17636 Chapter 3, Article 7.3 Disposal Site Records	Applicable	Weight/Volume Records: the weight or volume of waste accepted must be determined to an accuracy of ±10%	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17637 Chapter 3, Article 7.3 Disposal Site Records	Applicable	Subsurface Records: the length and depth of any cut(s) made in natural terrain where fill will be placed and the depth to groundwater must be determined and documented.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17658 Chapter 3, Article 7.4 Disposal Site Improvements	Applicable	Site Security: the perimeter of the landfill must be secured either through barriers or topographic constraints to discourage unauthorized entry.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17659 Chapter 3, Article 7.4 Disposal Site Improvements	Applicable	Access Roads: landfill roads must be reasonably smooth to minimize dust and tracking of materials onto public roads.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17676 Chapter 3, Article 7.5 Disposal Site Operations	Applicable	Confined Unloading: Requires limiting unloading area, controlling windblown materials, and deposition at toe of fill.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation sites

State ARARs for Solid Waste Disposal Site Excavation and Consolidation

Source	Standard, Requirement, Criterion, or Limitation	ARAR Status	Description	Comment	Associated Site
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17677 Chapter 3, Article 7.5 Disposal Site Operations	Applicable	Spreading and Compacting: Requires spreading and compacting of refuse in layers.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17684 Chapter 3, Article 7.5 Disposal Site Operations	Applicable	Intermediate Cover: Requires cover on fill where no additional refuse will be deposited within 180 days.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17678 Chapter 3, Article 7.5 Disposal Site Operations	Applicable	Slopes and Cuts: The slope of the working face shall be maintained at a ratio which will allow effective compaction of the wastes. The depth of cuts and slopes of trench sides shall not exceed specified horizontal to vertical ratios.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17689 Chapter 3, Article 7.5 Disposal Site Operations	Applicable	Processing Area: Processing area shall be confined to greatest degree practicable.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17680 Chapter 3, Article 7.5 Disposal Site Operations	Applicable	Stockpiling: Requires stockpiled cover material and unacceptable native materials to be placed so as not to cause problems or interference with site operations.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17687 Chapter 3, Article 7.5 Disposal Site Operations	Applicable	Salvaging Permitted: Salvaging is permitted in a planned and controlled manner.	No salvage planned as a part of the selected action. Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites

State ARARs for Solid Waste Disposal Site Excavation and Consolidation

Source	Standard, Requirement, Criterion, or Limitation	ARAR Status	Description	Comment	Associated Site
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17690 Chapter 3, Article 7.5 Disposal Site Operations	Applicable	Storage of Salvage: Salvage material must be safely isolated for storage.	No salvage planned as a part of the selected action. Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17691 Chapter 3, Article 7.5 Disposal Site Operations	Applicable	Removal: Storage time for salvage materials shall be limited to a safe duration.	No salvage planned as a part of the selected action. Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17692 Chapter 3, Article 7.5 Disposal Site Operations	Applicable	Non-Salvageable Items: Items capable of impairing public health shall not be salvaged without approval by Enforcement Agency and local health entity.	No salvage planned as a part of the selected action. Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17686 Chapter 3, Article 7.5 Disposal Site Operations	Applicable	Scavenging: Scavenging is prohibited.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17688 Chapter 3, Article 7.5 Disposal Site Operations	Applicable	Volume Reduction and Energy Recovery: Volume reduction and energy recovery are permitted in planned and controlled manners.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites

State ARARs for Solid Waste Disposal Site Excavation and Consolidation

Source	Standard, Requirement, Criterion, or Limitation	ARAR Status	Description	Comment	Associated Site
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17704 Chapter 3, Article 7.6 Disposal Site Controls	Applicable	Leachate Control: The operator shall take adequate steps to monitor, collect, treat, and effectively dispose of leachates.	The state does not intend that subsurface leachate monitoring and collection systems need to be installed at existing sites unless there is evidence of leachate production and/or accumulation. Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17705 Chapter 3, Article 7.6 Disposal Site Controls	Applicable	Gas Control: Landfill gas control may be required based on the monitoring results.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17706 Chapter 3, Article 7.6 Disposal Site Controls	Applicable	Dust Control: The operator shall take adequate measures to minimize the creation of dust.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17708 Chapter 3, Article 7.6 Disposal Site Controls	Applicable	Drainage And Erosion Control: Adequate drainage shall be provided. Effects of erosion shall be promptly repaired and steps taken to prevent further occurrence.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17709 Chapter 3, Article 7.6 Disposal Site Controls	Applicable	Contact with Water: No solid waste shall be deposited in direct contact with surface water.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17710 Chapter 3, Article 7.6 Disposal Site Controls	Applicable	Grading of Fill Surface: Covered surfaces of the disposal area shall be graded to promote run-off and prevent ponding, accounting for future settlement.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites

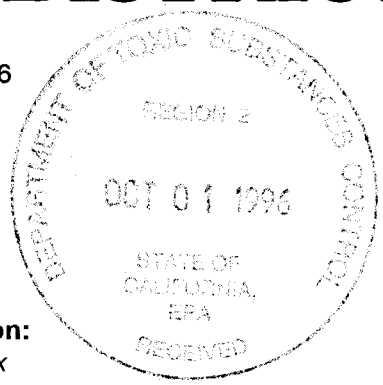
State ARARs for Solid Waste Disposal Site Excavation and Consolidation

Source	Standard, Requirement, Criterion, or Limitation	ARAR Status	Description	Comment	Associated Site
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17711 Chapter 3, Article 7.6 Disposal Site Controls	Applicable	Litter Control: Litter and loose materials shall be routinely collected and disposed of properly.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17713 Chapter 3, Article 7.6 Disposal Site Controls	Applicable	Odor Control: The disposal site shall not be a source of odor nuisances.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17701 Chapter 3, Article 7.6 Disposal Site Controls	Applicable	Nuisance Control: Each site shall be operated and maintained so as not to create a public nuisance.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17707 Chapter 3, Article 7.6 Disposal Site Controls	Applicable	Vector and Bird Control: The operator shall take adequate measures to control or prevent the propagation, harborage, or attraction of flies, rodents, or other vectors, and to minimize bird problems.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites
California Integrated Waste Management Act of 1989 PRC 40502, 43020, 43021 and 43030	14 CCR 17741 Chapter 3, Article 7.6 Disposal Site Controls	Applicable	Burning Wastes: Burning wastes shall be extinguished.	Applies to solid waste disposal sites as defined by Public Resources Code Section 40122.	For consolidation and excavation sites

14 CCR - California Code of Regulations, Title 14 ARAR - applicable or relevant and appropriate requirement ROD - Record of Decision RD/RA - remedial design/remedial action

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

September 30, 1996



Cyrus Shabahari, Project Manager
Department of Toxic Substances Control
Office of Military Facilities
700 Heinz Avenue, Suite 200
Berkeley, Ca 94710-2737

Equipment Location:
Hunters Point Annex
San Francisco, Ca

Dear Sir:

This letter provides the ambient air ARARs of the BAAQMD. Since there is some repetition in processes for the Preliminary Alternatives (S-1 through S-5), and the applicability of District Regulations (REGs) are partially determined by the nature of the operation, ARARS will be addressed by process (*i* Excavation and Soil Handling; *ii* SVE of VOC affected soil; and *iii* Thermal Desorption of VOC affected soil) rather than by Alternative. They are as follows:

Excavation and Soil Handling

REG 8-40 (attached) addresses the sampling (8-40-601), acceptable aeration rates (8-40-301, and notification requirements (8-40-402 through -405) for excavation and aeration of VOC contaminated soil. Please note that compliance with this REG is mandatory regardless of Permit status. Any excavation of VOC contaminated soil would require proper notification (see form at end of REG 8-40), and associated aeration may proceed at the rates specified unless 90% by weight emission control is provided. Please note the specific exemptions from this rule for non-volatile hydrocarbons such as diesel (8-40-113).

REGs 6, and 11-1 (attached) address particulate and lead emissions in general. Any soil handling must comply with both. Toxic emissions from excavation and soil handling are likely to be minimal; however, emissions of toxic compounds from soil handling would need to be addressed in any risk screening should the SVE or Thermal Desorption activities trigger a risk screen analysis (see below).

SVE of VOC affected Soil

REG 8-47 (attached) addresses emission control requirements for Soil Vapor Extraction operations. Any SVE or Airstripper operating in the District must abate by at least 90% by weight emissions to the atmosphere of Precursor Organic Compounds (POCs) in excess of 15 #/day, or any emissions of the following Toxic compounds: benzene; vinyl chloride; perchloroethylene; methylene chloride; and/or trichloroethylene. The BACT trigger is 10 #/day (see REG 2-2-301). The triggers for Toxic Risk Screening vary by compound (see REG 2-1, table 2-1-316) and TBACT is required whenever the risk is found to be between 1 and 10 in a million. Therefore, to avoid confusion regarding the applicability of REG 8-47-301, -302, and the exemptions 8-47-109, -113; SIMPLY STATED, No SVE or Airstripping system may operate unabated unless emissions of POCs are less than 10 #/day, and emissions of Toxic compounds are all less than the trigger levels listed in Table 2-1-316, unless a Toxic Risk Screen has been performed to show that the risk to the maximally exposed receptor is less 1 in a million. TBACT is equivalent to BACT for toxic compounds and I have enclosed page 2.1.1 from the BACT Handbook for guidance. The BACT requirements for airstrippers is the same as for SVE operations. See REG 2-1-316 for applicability of Toxic Risk Screening, and REG 2-2-301 for applicability BACT.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Thermal Desorption of VOC affected Soil

REGs 8-47-202, and -203 indicate that Thermal Desorption is subject the requirements of the Rule 8-47, since it is an "active system...which forcibly aerates soil by...applying heat to the soil." All of the above comments for SVE of VOC affected Soil would apply to Thermal Desorption of VOC affected Soil. In addition, Thermal Desorption of VOC affected Soil would be subject to the particulate requirements as cited in the Aeration and Soil Handling section. Should the emissions of particulates be greater than 10 #/day, as is often the case with Thermal Desorption, BACT would be triggered and emissions would need to be vented through a bag-house meeting the requirements listed on page 155.1 of the BACT Handbook (attached). Combustion (NOx and CO) emissions from the Soil Kiln are usually not greater than the 10 #/day trigger. If a Thermal Oxidizer is used for POC abatement, the emissions of NOx and CO may be higher; however, these are emissions from an abatement device not a source, and so are not subject to BACT requirements.

I believe that nearly all of the investigative procedures employed thus far would not be subject to District Regulations due to their limited extent and investigative nature; however, any procedure which would cause a public nuisance (see Reg. 1, Section 301), or odor complaint would certainly garner the attention of the District Enforcement Division. In addition, excavation of contaminated soil requires advance notification be provided to the District as per Reg. 8-40. You may want to direct inquiries regarding compliance issues to the Enforcement Division (Regulation Advisory line: (415) 749-4600). Please contact me should you have any other questions at **(415) 749-5048.**

Very truly yours,

Robert E. Cave
Air Quality Engineer
Permit Services Division

REC:rkt
Enclosures

939 ELLIS STREET • SAN FRANCISCO, CALIFORNIA 94109 • (415) 771-6000 • FAX (415) 928-8560

Cal/EPA

Department of Toxic Substances Control

700 Heinz Avenue Suite 200 Berkeley, CA 94710-2737

September 6, 1996

Pete Wilson Governor

James M. Strock Secretary for Environmental Protection

Bay Area Air Quality Management District
Attn: Mr. Brian Bateman
939 Ellis Street
San Francisco, California 94109

Dear Mr. Bateman:

SOLICITATION OF APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARs), HUNTERS POINT ANNEX SAN FRANCISCO

Pursuant to section 121 (d)(2) of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended by the 1986 Superfund Amendment and Re-authorization Act, the Navy is required to incorporate (or waive) federal and state ARARs for on-site remedial actions. Further, the Federal Facility Agreement, between the State, U.S. EPA and the US Navy, requires implementation of state and federal ARARs during the implementation of remedial investigations and response actions at Hunters Point. The Department of Toxic Substances Control (Department) is the State lead agency for the environmental investigation and cleanup at Hunters Point Shipyard of San Francisco and is thus requesting your ARARs by October 3, 1996 to forward to the Navy.

The enclosed letter from the Navy identifies chemicals of potential concern and preliminary alternatives for Parcel D cleanup. Please note that in its letter to the Department, the Navy is asking for specific citation, brief description and rationale for using state ARARs.

Should you have any questions about this letter, please call me at (510) 540-3821.

Sincerely,

Cyrus Shabahari

Cyrus Shabahari
Project Manager
Office of Military Facilities

Enclosure

ENCLOSURE

LETTER FROM THE NAVY CHEMICALS OF POTENTIAL CONCERN AND PRELIMINARY ALTERNATIVES FOR PARCEL D CLEANUP

THE ABOVE IDENTIFIED ENCLOSURE IS NOT AVAILABLE.

EXTENSIVE RESEARCH WAS PERFORMED BY SOUTHWEST DIVISION TO LOCATE THIS ENCLOSURE. THIS PAGE HAS BEEN INSERTED AS A PLACEHOLDER AND WILL BE REPLACED SHOULD THE MISSING ITEM BE LOCATED.

QUESTIONS MAY BE DIRECTED TO:

DIANE C. SILVA
RECORDS MANAGEMENT SPECIALIST
SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
1220 PACIFIC HIGHWAY
SAN DIEGO, CA 92132

TELEPHONE: (619) 532-3676

PRELIMINARY ALTERNATIVES FOR HPS PARCEL D

Alt. No.[a]	Description
S-1	No action
S-2	Excavation Off-site disposal of all affected soil in appropriate landfill
S-3	SVE of VOC-affected soil[b] Excavation Ex-Situ treatment of all soil using solidification and stabilization On-site placement of treated soil at IR1/21 landfill[c]
S-4	Excavation Treatment of VOC-affected soil using Thermal Desorption Subsequent treatment of soil containing other organics and metals using solidification and stabilization On-site placement of treated soil at IR1/21 landfill[c]
S-5	In-situ SVE treatment of VOC-affected soil In-situ shallow soil mixing (in-place stabilization and solidification of affected soil)

Notes:

a Preliminary screening indicates that groundwater at Parcel D does not pose a risk to human health or the environment, therefore, no groundwater alternatives are presented.

b SVE will be conducted to minimize treatment requirements.

c Limited off-site disposal is anticipated as part of economic soil management.

Enclosure (2)

REGULATION 8
ORGANIC COMPOUNDS
RULE 40
AERATION OF CONTAMINATED SOIL
AND
REMOVAL OF UNDERGROUND STORAGE TANKS

INDEX

8-40-500 MONITORING AND RECORDS (None Included)

8-40-600 MANUAL OF PROCEDURES

8-40-601 Soil Sampling
8-40-602 Measurement of Organic Content
8-40-603 Determination of Emissions

REGULATION 8
ORGANIC COMPOUNDS
RULE 40
AERATION OF CONTAMINATED SOIL
AND
REMOVAL OF UNDERGROUND STORAGE TANKS
(Adopted July 16, 1986)

8-40-100 GENERAL

8-40-101 Description: The purpose of this Rule is to limit the emission of organic compounds from soil that has been contaminated by organic chemical or petroleum chemical leaks or spills; to describe an acceptable soil aeration procedure; and to describe an acceptable procedure for controlling emissions from underground storage tanks during removal or replacement. (Amended February 15, 1989)

8-40-110 Exemption, Storage Piles: Calculations of aeration volume under Section 8-40-204 shall not include storage piles that are covered per Section 8-40-303 nor shall they include active storage piles.

8-40-111 Exemption, Excavated Hole: The exposed surfaces of an excavated hole shall not be included in calculations of aerated volume under Section 8-40-204.

8-40-112 Exemption, Sampling: Contaminated soil exposed for the sole purpose of sampling shall not be considered to be aerated. Removal of soil for sampling shall not qualify a pile as "active."

8-40-113 Exemption, Non-volatile Hydrocarbons: The requirements of all sections of this Rule shall not apply if the soil is contaminated solely by a known organic chemical or petroleum liquid and that chemical or liquid has an initial boiling point of 302oF or higher provided that the soil is not heated. (Amended February 15, 1989)

8-40-114 Exemption, Soil Excavation During Pipeline Leak Repairs: The requirements of Section 8-40-402 shall not apply if soil is being excavated in order to repair leaking pipelines and if no more than 5 cubic yards are generated, and provided the requirements in Section 8-40-404 are satisfied. (Adopted February 15, 1989)

8-40-115 Exemption, Soil Excavation Unrelated to Underground Storage Tank Activities: The requirements of Section 8-40-402 shall not apply where contaminated soil is discovered during excavations unrelated to underground storage tank activities, and provided the requirements in Section 8-40-405 are satisfied.
(Adopted February 15, 1989)

8-40-200 DEFINITIONS

8-40-201 Active Storage Pile: A pile of contaminated soil to which soil is currently being added or from which soil is currently being removed. Activity must have occurred or be anticipated to occur within one hour to be current.

8-40-202 Aeration: Exposure of excavated contaminated soil to the air.

8-40-203 Aeration Depth: The smaller of the following: the actual average depth of contaminated soil; or 0.15 meters (0.5 feet) multiplied by the daily frequency with which soil is turned. (Amended February 15, 1989)

8-40-204 Aeration Volume: The volume of soil being aerated shall be calculated as follows: the exposed surface area (in square feet or square meters) shall be multiplied by the aeration depth. The exposed surface area includes the pile of excavated soil unless the pile is covered per Section 8-40-303. (Amended February 15, 1989)

8-40-205 Contaminated Soil: Soil which has an organic content, as measured using the procedure in Section 8-40-602, exceeding 50 ppm(wt).

8-40-206 **Organic Compound:** Any compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate.

8-40-207 **Organic Content:** The concentration of organic compounds measured in the composite sample collected and analyzed using the procedures in Sections 8-40-601 and 8-40-602.

8-40-208 **Vapor Free:** The process of purging gases from a tank using dry ice to replace organic vapors with an inert atmosphere.

8-40-209 **Ventilation:** The process of purging gases from a tank by blowing or drawing another gas through the tank.

8-40-210 **Emergency Removal or Replacement or Excavation:** A removal or replacement of a tank or an excavation of soil carried out pursuant to an order of a state or local government agency issued because the contaminated soil poses an imminent threat to public health and safety. (Adopted February 15, 1989)

8-40-300 **STANDARDS**

8-40-301 **Uncontrolled Aeration:** A person shall not aerate contaminated soil at a rate in excess of that specified in Table 1 for the degree of organic content. The limitations in Table 1 apply to the entire facility and indicate the volume of contaminated soil that may be added, on any one day, to soil that is already aerating.

Table 1
Allowable Rate of Uncontrolled Aeration

ORGANIC CONTENT	RATE OF UNCONTROLLED AERATION	
ppm(weight)	Cubic meters/day	Cubic yards/day
<50	Exempt	Exempt
50 - 99	459.0	600
100 - 499	91.8	120
500 - 999	45.9	60
1000 - 1999	22.9	30
2000 - 2999	11.5	15
3000 - 3999	7.6	10
4000 - 4999	5.7	8
>5000	0.08	0.1

(Amended February 15, 1989)

8-40-302 **Controlled Aeration:** Soil may be aerated at rates exceeding the limitations of 8-40-301 provided emissions of organic compounds to the atmosphere are reduced by at least 90 by weight.

8-40-303 **Storage Piles:** Contaminated soil which is not being aerated shall be covered except when soil is being added or removed. Any uncovered contaminated soil will be considered to be aerated. The soil may be covered with a layer of uncontaminated soil no less than six inches deep; or it may be covered with a tarp or other covering, provided no head space where vapors may accumulate is formed and provided the covering is in good condition and is secured adequately so as to minimize emissions to the atmosphere. (Amended February 15, 1989)

8-40-310 **Underground Storage Tanks - Removal or Replacement:** Any person wishing to permanently remove or replace an underground storage tank which previously contained organic compounds shall follow the following procedure:

310.1 All piping shall be drained or flushed into the tank or other container.

310.2 All liquids and sludges shall be removed, to the extent possible, from the tank. A hand pump shall be used to remove the bottom few inches of product if necessary.

310.3 Vapors shall be removed from the tank using one of the following three methods:

3.1 The tank may be filled with water, displacing vapors and hydrocarbon liquids.

3.2 Vapor freeing.

3.3 Ventilation. (Amended February 15, 1989; June 15, 1994)

8-40-311 **Vapor Freeing:** No person shall vapor free a tank containing more than 0.001 gallons of liquid organic compounds per gallon of tank capacity unless emissions of organic compounds to the atmosphere are reduced by at least 90 percent.

8-40-312 **Ventilation:** No person shall ventilate a tank containing more than 0.001 gallons of liquid organic compounds per gallon of tank capacity unless emissions of organic compounds to the atmosphere are reduced by at least 90 percent.

8-40-400 **ADMINISTRATIVE REQUIREMENTS**

8-40-401 **Reporting, Removal or Replacement of Tanks**: The person responsible for the removal or replacement of tanks which are subject to the provisions of Section 8-40-310 shall provide written notice to the APCO of intention to remove or replace tanks. The written notice shall be postmarked at least 5 days prior to commencement of such removal or replacement. In the case of emergency removal or replacement of tanks, notice shall be provided as early as possible prior to the commencement of such emergency removal or replacement, to be followed by written verification. The written notice of intention shall include:

401.1 Names and addresses of persons performing and responsible for the tank removal or replacement.

401.2 Location of site at which tank removal or replacement will occur.

401.3 Scheduled starting date of tank removal or replacement. The scheduled starting date may be delayed for no more than 5 working days, provided the APCO is notified by telephone as early as possible prior to the new starting date.

401.4 Procedures to be employed to meet the requirements of Sections 8-40-310.

401.5 If applicable, name, title and authority of the state or local government representative who has ordered a tank removal or replacement which is subject to emergency procedures. (Adopted, February 15, 1989)

8-40-402 **Reporting, Excavation of Soil**: The person responsible for the excavation of soil subject to the provisions of Sections 8-40-301 or 302 shall provide written notice to the APCO of intention to excavate. The written notice shall be postmarked at least 5 days prior to commencement of such excavation. In the case of emergency excavations, notice shall be provided as early as possible prior to the commencement of such emergency excavation, to be followed by written verification. Written notice of intention to excavate may be submitted to the APCO at the same time written notice of intention to remove or replace tanks is submitted provided that such notification precedes the commencement of either tank removal or replacement or soil excavation by at least 5 days as indicated by postmark. The written notice of intention shall include:

402.1 Names and addresses of persons performing and responsible for excavation.

402.2 Location of site at which excavation will occur.

402.3 Scheduled starting date of excavation. The scheduled starting date may be delayed for no more than 5 working days, provided the APCO is notified by telephone as early as possible prior to the new starting date.

402.4 Procedures to be employed to meet the requirements of Sections 8-40-301 or 302.

402.5 If applicable, name, title and authority of the state or local government representative who has ordered an excavation which is subject to emergency procedures. (Adopted February 15, 1989)

8-40-403 Reporting, Aeration of Contaminated Soil: The person responsible for aeration of any contaminated soil shall provide the District, by telephone, with the following information. This shall be provided no less than 24 hours prior to the spreading or heating of any contaminated soil. The District shall again be notified within 24 hours of a change in one or more of the following parameters:

403.1 Estimated total quantity of soil to be aerated

403.2 Estimated quantity of soil to be aerated per day

403.3 Estimated average degree of contamination, or total organic content of soil

403.4 Chemical composition of contaminating organic compounds (i.e., gasoline, methylene chloride, etc.)

403.5 A description of the basis on which these estimates were derived (soil analysis test reports, etc.) (Amended, Renumbered February 15, 1989)

8-40-404 Reporting, Soil Excavation During Pipeline Leak Repairs: The person responsible for the excavation of no more than 5 cubic yards of soil generated by a pipeline leak repair shall provide written notice to the APCO as early as possible, but not later than 10 working days, after excavation is completed. The written notice shall include:

404.1 Names and addresses of persons performing and responsible for excavation

404.2 Location of site at which excavation occurred

404.3 Date of excavation

404.4 Quantity of soil excavated

404.5 Estimated average degree of contamination, or total organic content of soil

(Adopted February 15, 1989)

8-40-405 Reporting, Soil Excavations Unrelated to Underground Storage Tank Activities: The person responsible for soil excavations unrelated to underground storage tank activities where contaminated soil is discovered shall provide notice as early as possible upon detection of such contaminated soil, to be followed by written verification. The written verification shall include:

405.1 Names and addresses of persons performing and responsible for excavation

405.2 Location of site at which excavation occurred

405.3 Date of excavation

405.4 Quantity of soil excavated

405.5 Estimated average degree of contamination, or total organic content of soil

(Adopted February 15, 1989)

8-40-600 MANUAL OF PROCEDURES

8-40-601 Soil Sampling: One composite sample shall be collected and analyzed for every 50 cubic yards of excavated contaminated soil to be aerated. At least one composite sample shall be collected from each inactive, uncovered storage pile within 24 hours of excavation. Samples are not required if the soil is uncontaminated.

601.1 Each composite sample shall consist of four separate soil samples taken using the procedures described below. The soil samples shall remain separate until they are combined in the laboratory just prior to analysis.

601.2 Each 50 cubic yard pile for which a composite sample is required shall be considered to have four equal sectors. One sample shall be taken from the center of each sector. Samples shall be taken from at least three inches below the surface of the pile. Samples shall be taken using one of the following methods:

2.1 Samples shall be taken using a driven-tube type sampler, capped and sealed with inert materials, and extruded in the lab in order to reduce the loss of volatile materials; or

2.2 Samples shall be taken using a clean brass tube (at least three inches long) driven into the soil with a suitable instrument. The ends of the brass tube shall then be covered with aluminum foil, then plastic end caps, and finally wrapped with a suitable tape. The samples shall then be immediately placed on ice, or dry ice, for transport to a laboratory.

(Amended February 15, 1989)

8-40-602 Measurement of Organic Content: Organic content of soil shall be determined by the Regional Water Quality Control Board's Revised Analytical Methods, Attachment 2, 11/8/85, or EPA Reference Method 8010 or 8015.

(Amended February 15, 1989; October 6, 1993)

8-40-603 Determination of Emissions: Emissions of organic compounds as specified in Sections 8-40-302, 8-40-311 and 8-40-312 shall be measured as prescribed by any of the following methods: 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Amended February 15, 1989; June 15, 1994)

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
939 ELLIS STREET
SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000

REGULATION 8, RULE 40 NOTIFICATION FORM

Check √ ☐ Removal or Replacement of Tanks
☐ Excavation of Contaminated Soil

SITE INFORMATION

Site Address

City, State Zip

Owner Name

Specific location of project

Tank Removal

Scheduled startup date _____
Vapors removed by:
☐ Water wash
☐ Vapor freeing (CO^2)
☐ Ventilation

Indicate below if an A/C was obtained for tank replacement:

Yes_____ No_____ If yes, A/C or P/O # _____

Contaminated Soil Excavation

Scheduled Startup Date _____
Stockpiles will be covered? Yes_____ No_____

Indicate below the method used to comply with Regulation 8, Rule 40, Section 402.4:

Check (√) 8-40-301 ☐ 8-40-302 ☐ (permit required)

A/C or P/O # _____

A/C = Authority to Construct P/O = Permit to Operate

What other public agency have you notified (e.g., Fire District, Hazardous Materials Department, City or County)?

Agency _____ Contact _____ Phone # ( ) _____

CONTRACTOR INFORMATION

BAAQMD # _____

Name | Contact

Address | Phone ( )

City, State, Zip

CONSULTANT INFORMATION (if applicable)

Name | Contact

Address | Phone ( )

City, State, Zip

FOR OFFICE USE ONLY

Date Received Fax: Date Postmarked:

Inspector No.: Date: By_____

Update: Contact Name Date: By_____

Update: Contact Name Date: By_____

See reverse for instructions

BAY AREA AIR QUALITY MANAGEMENT DISTRICT

COMPLIANCE ASSISTANCE ADVISORY

October 6, 1994

TO: INTERESTED PARTIES

FROM: DIRECTOR OF ENFORCEMENT

SUBJECT: **OPERATION FEES FOR AERATION OF CONTAMINATED SOIL AND THE REMOVAL OF UNDERGROUND STORAGE TANKS**

On January 5, 1994, the Board of Directors of the Bay Area Air Quality Management District adopted amendments to Regulation 3, Fees and adopted a new Schedule Q, Operation Fees for the Excavation of Contaminated Soil and the Removal of Underground Storage Tanks. This fee was instituted to recover the costs which result from compliance inspections for these types of operations.

The amendments to Regulation 3 set the following provisions:

- Effective immediately an operating fee of $100 will be invoiced for each written notification for excavation of contaminated soil and the removal of underground storage tanks submitted pursuant to Regulation 8 Rule 40.
- Exemptions to this provision exist and can be found in Regulation 3, Sections 105.1 and 105.2.
- If you conduct operations which include underground storage tank removals, or excavation of contaminated soil, you will receive an invoice for $100 after you submit the required notification. The operating fee will be due and payable on the date indicated on your invoice. The $100 operating fee applies to all of the above-referenced operations at a single work site. (e.g., if multiple operations are conducted, only one operating fee will be assessed.)
- A revised Regulation 8, Rule 40 Notification Form is enclosed for your information.

For a copy of Regulation 8, Rule 40 and related sections of Regulation 3, call the District's Public Information Office at (415) 749-4900.

Is your operation in compliance with District rules? For help, call the Compliance Assistance Counselor at (415) 749-4999.

For further information about this rule call the Rule Advisory Line at (415) 749-4600.

Enclosure

g:\inbox\ad2.doc\JRG:TG/rg October 6, 1994

939 ELLIS STREET • SAN FRANCISCO, CALIFORNIA 94109 • (415) 771-6000 • FAX (415) 928-8560

REGULATION 6

PARTICULATE MATTER AND VISIBLE EMISSIONS

INDEX

REGULATION 6

PARTICULATE MATTER AND VISIBLE EMISSIONS

6-100 GENERAL

6-101 Description: The purpose of this Regulation is to limit the quantity of particulate matter in the atmosphere through the establishment of limitations on emission rates, concentration, visible emissions and opacity.

6-110 Exemption, Temporary Sandblasting Operations: Temporary Sandblasting operations are exempt from the provisions of this Rule. Such operations are subject to the provisions of Regulation 12, Rule 4. (Adopted July 11, 1990)

6-111 Exemption, Open Outdoor Fires: The limitations of this rule shall not apply to emissions arising from open outdoor fires. (Adopted December 19, 1990)

6-200 DEFINITIONS

6-201 Exhaust Gas Volume: The volume of gases discharged from an operation; or an emission point.

6-202 Particulate Matter: Any material which is emitted as liquid or solid particles, or gaseous material which becomes liquid or solid particles at the testing temperatures specified in the Manual of Procedures, excluding uncombined water.

6-203 Process Weight: The total weight of all material introduced into an operation, excluding liquids and gases used solely as fuels, air which is not consumed as a reactant, and combustion air.

6-204 Process Weight Rate: A rate established as follows:

204.1 For continuous or long-run steady-state operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portions thereof.

204.2 For cyclical or batch operations, the total process weight for a period which covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such period. Where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation of this section, that interpretation which results in the minimum value for allowable emission shall apply.

6-300 STANDARDS

6-301 Ringelmann No. 1 Limitation: Except as provided in Sections 6-303, 6-304 and 6-306, a person shall not emit from any source for a period or periods aggregating more than three minutes in any hour, a visible emission which is as dark or darker than No. 1 on the Ringelmann Chart, or of such opacity as to obscure an observer's view to an equivalent or greater degree. (Amended July 11, 1990)

6-302 Opacity Limitation: Except as provided in Sections 6-303, 6-304 and 6-306, a person shall not emit from any source for a period or periods aggregating more than three minutes in a any hour an emission equal to or greater than 20% opacity as perceived by an opacity sensing device, where such device is required by District regulations. (Amended July 11, 1990)

6-303 Ringelmann No. 2 Limitation: A person shall not emit for a period or periods aggregating more than three minutes in any hour, a visible emission which is as dark or darker than No. 2 on the Ringelmann Chart, or of such opacity as to obscure an observer's view to an equivalent or greater degree, nor shall said emission, as perceived by an opacity sensing device in good working order, where such device is

required by District regulations, be equal to a greater than 40% opacity, from the following sources:

303.1 Internal combustion engines of less than 25 liters (1500 in^3) displacement, or any engine used solely as a standby source of motive power;

303.2 Laboratory equipment used exclusively for chemical or physical analyses or experimentation;

303.3 Portable brazing, soldering or welding equipment;

303.4 Deleted July 11, 1990. (Amended January 5, 1983, July 11, 1990)

6-304 Tube Cleaning: During tube cleaning, and except for three minutes in any one hour, a person shall not emit from any heat transfer operation using fuel at a rate of not less than 148 GJ (140 million BTU) per hour, a visible emission as dark or darker than No. 2 on the Ringelmann Chart, or of such opacity as to obscure an observer's view to an equivalent or greater degree, or equal to or greater than 40% opacity as perceived by an opacity sensing device in good working order. The aggregate duration of such emissions in any 24 hour period shall not exceed 6.0 minutes per 1055 GJ (one billion BTU) gross heating value of fuel burned during such 24 hour period.

6-305 Visible Particles: A person shall not emit particles from any operation in sufficient number to cause annoyance to any other person, which particles are large enough to be visible as individual particles at the emission point or of such size and nature as to be visible individually as incandescent particles. This Section 6-305 shall only apply if such particles fall on real property other than that of the person responsible for the emission.

6-306 Diesel Piledriving Hammers: Piledriving hammers powered by diesel fuel shall comply with one of the following standards:

306.1 A person shall not emit from any diesel piledriving hammer for a period or periods aggregating more than four minutes during the driving of a single pile, a visible emission which is as dark or darker than No. 1 on the Ringelmannn Chart, or of such opacity as to obscure an observer's view to an equivalent or greater degree.

306.2 A person shall not emit from any diesel piledriving hammer for a period or periods aggregating more than four minutes during the driving of a single pile, a visible emission which is as dark or darker than No. 2 on the Ringelmann Chart or of such opacity as to obscure an observer's view to an equivalent or greater degree provided that the operator utilizes kerosene, smoke suppressing fuel additives and synthetic lubricating oil, and the requirements of Section 6-503 are satisfied. (Adopted July 11, 1990)

6-310 Particulate Weight Limitation: A person shall not emit from any source particulate matter in excess of 343 mg per dscm (0.15 gr. per dscf) of exhaust gas volume.

310.1 Incineration or Salvage Operations. For the purposes of 6-310, the actual measured concentration of particulate matter in the exhaust gas from any incineration operation or salvage operation shall be corrected to the concentration which the same quantity of particulate matter would constitute in the exhaust gas minus water vapor corrected to standard conditions, containing 12% CO_2 by volume, and as if no auxiliary fuel had been used.

310.2 Gas-fired Pathological Waste Incinerators. The particulate emissions from gas-fired pathological waste incinerators, where emissions are not mingled with emissions from incineration of general wastes, shall be corrected as specified in Section 6-310.1 except that correction for auxiliary fuel shall not be required.

310.3 Heat Transfer Operation. For the purposes of 6-310, the actual measured concentration of particulate matter in the exhaust from any heat transfer operation shall be corrected to the concentration which the same quantity of particulate matter would constitute in the exhaust gas minus water vapor, corrected to standard conditions, containing 6% oxygen by volume.

6-311 General Operations: In addition to the limitation of Section 6-310, a person shall not discharge into the atmosphere from any general operation particulate matter from any

emission point, at a rate in excess of that specified in Table 1 for the process weight rate indicated. This section shall not apply to fuel-fired indirect heat exchangers.

TABLE 1

ALLOWABLE RATE OF EMISSIONS BASED ON PROCESS WEIGHT RATE

Process wt rate = P		Emission = E	
kg/hour	lbs/hour	kg/hour	lbs/hour
250	550	0.8	1.8
300	660	0.9	2.0
400	880	1.1	2.4
500	1100	1.3	2.9
1000	2205	2.1	4.6
2000	4410	3.3	7.3
3000	6615	4.3	9.5
4000	8820	5.2	11.0
5000	11020	6.0	13.0
10000	22045	9.6	21.0
20000	44090	15.2	33.0
over 26000	57320	18.1	40.0

(interpolation formula deleted May 21, 1980. See page 605 for formulae.)
Interpolation in kg/hr

E in kg/hr = $0.02\ P^{0.67}$ in kg/hr

The interpolation of the data in this Table shall be accomplished by the use of the equation $E = 0.022P^{0.67}$, where E = rate of emission in kg/hour, not to exceed 18.1 kg/hour and P = process weight rate in kg/hour.

interpolation in lbs/hr

E in lbs/hr = $4.10\ P^{0.67}$ in lbs/hr

6-320 Sulfuric Acid Manufacturing Plants: A person shall not emit from any operation manufacturing sulfuric acid using as a principal raw material any sulfur-containing material, any emission having a concentration of SO_3 or H_2SO_4, or both, expressed as 100% H_2SO_4, exceeding 92 mg per dscm (0.04 gr. per dscf) of exhaust gas volume.

6-330 Sulfur Recovery Units: A person shall not emit from any operation manufacturing sulfur, using as a principal raw material any sulfur-containing material, any emission having a concentration of SO_3 or H_2S0_4, or both, expressed as 100% H_2S0_4, exceeding 183 mg dscm (0.08 gr. dscf) of exhaust gas volume.

6-400 ADMINISTRATIVE REQUIREMENTS

6-401 Appearance of Emissions: Every person responsible for an emission (except from gas fired heat transfer operations regulated by Sections 6-301, 6-303 and 6-304) shall have and maintain means whereby the operator of the plant shall be able to know the appearance of the emission at all times.

6-500 MONITORING AND RECORDS

6-501 Sampling Facilities and Instruments Required: Persons subject to this regulation shall provide sampling facilities and install instruments as required pursuant to the provisions of Sections 1-501, 1-520 and 1-521 of Regulation 1.

6-502 Data, Records and Reporting: Persons monitoring emissions in accordance with the requirements of Sections 1-520 and 1-521 of Regulation 1 shall keep records, report emission excesses and provide summaries of data collected as required by Regulation 1.

6-503 Records: A person responsible for the operation of a diesel pile-driving hammer who chooses to comply with subsection 6-306.2 shall maintain and have available for inspection records which establish the use of kerosene, smoke suppressing fuel additives and synthetic lubricating oil. (Adopted July 11, 1990)

6-600 MANUAL OF PROCEDURES

6-601 Particulate Matter, Sampling, Sampling Facilities, Opacity Instruments and Appraisal of Visible Emissions: The MOP contains the testing temperature for the determination of the presence of particulate matter, procedures relating to the siting of sampling facilities, source test procedures, opacity instrument specifications, calibration and maintenance requirements, and the procedure for appraising visible emissions.

REGULATION 11

HAZARDOUS POLLUTANTS

RULE 1

LEAD

INDEX

REGULATION 11

HAZARDOUS POLLUTANTS

RULE 1

LEAD

11-1-100 GENERAL

11-1-101 Description: The purpose of this Rule is to control the emission of lead to the atmosphere.

11-1-102 Optional Standards: A person responsible for the emission of lead may elect, by written notification to the APCO, to be regulated by the requirements of Section 11-1-303 rather than Section 11-1-302.

11-1-300 STANDARDS

11-1-301 Daily Limitation: A person shall not discharge any emission of lead, or compound of lead calculated as lead, from any emission point in excess of 6.75 kg (15 lbs) per day.

11-1-302 Ground Level Concentration Limit Without Background: A person shall not discharge any emission of lead, or compound of lead calculated as lead, that will result in ground level concentrations in excess of 1.0 ug/m^3 averaged over 24 hours.

11-1-303 Ground Level Concentration Limit With Background: A person electing to be regulated by this Section shall not discharge any emission of lead, or compound of lead, which results in ground level concentrations of lead in excess of 1.0 ug/m^3 above the background concentrations of lead averaged over 30 days. This Section shall not apply to the ground level concentrations occurring on the property from which such emission occurs, provided such property from the emission point to the point of such concentration is controlled by the person responsible for the emissions.

11-1-500 MONITORING AND RECORDS

11-1-501 Monitoring: A person electing to be regulated by Section 11-1-303 shall provide, install and maintain monitoring equipment.

11-1-600 MANUAL OF PROCEDURES

11-1-601 Determination of Ground Level Emission Limits: Emissions limited by Section 11-1-302 shall be determined by use of dispersion calculations described in the Manual of Procedures, Volume VI, Section 2. (Amended March 17, 1982)

11-1-602 Determination of Background Concentrations: Background concentrations of lead shall be determined in accordance with procedures described in the Manual of Procedures, Volume VI, Section 2. (Amended March 17, 1982)

11-1-603 Atmospheric Sampling: The requirements of Section 11-1-501 for monitoring concentrations of lead, including siting, sampling, and reporting procedures, are described in the Manual of Procedures, Volume VI, Section 2. (Amended March 17, 1982)

11-1-604 Determination of Daily Emission Limits: Emissions limited by Section 11-1-301 shall be determined by use of methods prescribed in the Manual of Procedures, Volume IV, ST-9. (Adopted March 17, 1982)

REGULATION 8
ORGANIC COMPOUNDS
RULE 47
AIR STRIPPING AND SOIL VAPOR EXTRACTION OPERATIONS

INDEX

REGULATION 8
ORGANIC COMPOUNDS
RULE 47
AIR STRIPPING AND SOIL VAPOR EXTRACTION OPERATIONS
(Adopted December 20, 1989)

8-47-100 GENERAL

8-47-101 Description: The purpose of this Rule is to limit emissions of organic compounds from contaminated groundwater and soil. The provisions of this Rule shall apply to new and modified air stripping and soil vapor extraction equipment used for the treatment of groundwater or soil contaminated with organic compounds.

8-47-109 Exemption, Small Operations: The provisions of Section 8-47-301 shall not apply to operations that satisfy both of the following requirements:

109.1 Operations that emit no more than one of the following compounds: benzene, vinyl chloride, trichloroethylene, perchloroethylene or methylene chloride; and

109.2 Benzene emissions do not exceed 0.05 pounds per day, vinyl chloride emissions do not exceed 0.2 pounds per day or trichloroethylene, perchloroethylene or methylene chloride emissions do not exceed 0.5 pounds per day.

8-47-110 Exemption, Sewage Treatment Facilities: The requirements of this Rule shall not apply to aeration of wastewater at sewage treatment facilities.

8-47-111 Exemption, Industrial Wastewater Treatment Facilities: The requirements of this Rule shall not apply to industrial wastewater treatment facilities.

8-47-112 Exemption, Specified Operation: This Rule shall not apply to operations that are subject to the requirements of Regulation 8, Rule 40.

8-47-113 Exemption, Air Stripping and Soil Vapor Extraction Operations Less Than 1 Pound per Day: The provisions of Section 8-47-301 shall not apply to operations with total emissions of less than 1 pound per day of benzene, vinyl chloride, perchloroethylene, methylene chloride and/or trichloroethylene, provided the requirements of Section 8-47-402 are satisfied. Once an exemption pursuant to this section is granted, if the emissions of an operation exceed 1 pound per day, then that operation is subject to Section 8-47-301. The operator of the source may submit a petition to the APCO in writing requesting review under this exemption if uncontrolled emissions have been shown, due to sustained remediation activities, to have dropped to a constant emission rate of less than 1 pound per day.

8-47-200 DEFINITIONS

8-47-201 Air Stripping: Equipment which is used to transfer organic compounds from contaminated water to the atmosphere by bringing water into intimate contact with air.

8-47-202 Soil Vapor Extraction: An underground and/or aboveground active system installed to extract organic compounds from the soil and vent them to the atmosphere. Operations subject to Regulation 8, Rule 40, are not subject to this Rule.

8-47-203 Active System: A system which forcibly aerates soil by mechanically drawing air through the soil or applying heat to the soil.

8-47-204 **Organic Compound:** Any compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate.

8-47-300 STANDARDS

8-47-301 **Emission Control Requirement, Specific Compounds:** Any air stripping and soil vapor extraction operations which emit benzene, vinyl chloride, perchoroethylene, methylene chloride and/or trichloroethylene shall be vented to a control device which reduces emissions to the atmosphere by at least 90 percent by weight.

8-47-302 **Organic Compounds:** Any air stripping and soil vapor extraction operations with a total organic compound emission greater than 15 pounds per day shall be vented to a control device which reduces the total organic compound emissions to the atmosphere by at least 90 percent by weight.

8-47-400 ADMINISTRATIVE REQUIREMENTS

8-47-401 **Reporting, Superfund Amendments and Reauthorization Act (SARA) Sites:** Any person responsible for air stripping or soil vapor extraction operations which have not applied for a District permit shall provide written notification to the APCO of intention to operate. This notice shall include:

401.1 Address of the remediation site.

401.2 Schedule of starting date 30 days prior to start-up.

401.3 Written certification that the proposed operation will be in compliance with the requirements of this Rule.

401.4 Any person seeking to satisfy the conditions of Section 8-47-113 shall submit the risk analysis for APCO approval as required in Section 8-47-402.

8-47-402 **Less Than 1 Pound Per Day Petition:** Any person seeking to satisfy the conditions of Section 8-47-113 shall:

402.1 Submit a petition to the APCO in writing requesting review and written approval of a risk analysis for the benzene, vinyl chloride, perchloroethylene, methylene chloride and/or trichloroethylene organic compound emissions that are less than 1 pound per day.

8-47-500 MONITORING AND RECORDS

8-47-501 **Records:** Any person subject to the requirement of this Rule shall keep records of the following:

501.1 Any water analysis results as required by Section 8-47-601.

501.2 Any vapor monitoring results that have been collected to monitor the performance of a control device. Such records shall be retained for a minimum of two years from date of entry and be made available to District staff upon request.

8-47-600 MANUAL OF PROCEDURES

8-47-601 **Air Stripper Water Sampling:** For each of the first three days of operation at least one sample of influent water into the air stripper shall be collected and analyzed. At least one sample shall be collected and analyzed thereafter for each calendar month of operation. Samples shall be collected in accordance with the EPA's or the Regional Water Quality Control Board's Analytical Methods. (Amended October 6, 1993)

8-47-602 **Measurement of Organic Content:** Organic compound concentration in the water shall be determined by the Regional Water Quality Control Board's Analytical Methods.

(Amended October 6, 1993)

8-47-603 **Determination of Emissions:** Emissions of organic compounds, as specified in sections 8-47-301 and 8-47-302, shall be measured as prescribed by any of the following methods 1) BAAQMD Manual of Procedures, Volume IV, ST-7, 2) EPA Method 25 or 25A. A source shall be considered in violation if the VOC emissions measured by any of the referenced test methods exceed the standards of this rule.

(Adopted December 20, 1989; Amended June 15, 1994)

REGULATION 2
PERMITS
RULE 2
NEW SOURCE REVIEW
INDEX

REGULATION 2
PERMITS
RULE 2
NEW SOURCE REVIEW
(Readopted and Renumbered July 17, 1991)

2-2-100 GENERAL

2-2-101 Description: This Rule shall apply to all new and modified sources which are subject to the requirements of Regulation 2-1-301. The purpose of this Rule is to provide for the review of new and modified sources and provide mechanisms, including the use of Best Available Control Technology (BACT) and emission offsets, by which authorities to construct such sources may be granted. This rule shall comply with the no net increase requirements of Section 40919 (b) of the Health and Safety Code as demonstrated by the requirements of Section 2-2-316. The New Source Review provisions of 40 CFR 51.165 and the Prevention of Significant Deterioration provisions of 40 CFR 51.166 are hereby incorporated by reference.
(Amended June 15, 1994)

2-2-110 Exemption, Temporary Replacement: The APCO shall exempt a person from the requirements of Section 2-2-301 of this Rule if the subject of the application is a temporary replacement source that will be in operation at the facility for less than three months from the date of issuance of the permit to operate or from the date of initial operation. (Amended June 15, 1994)

2-2-111 Exemption, PSD Monitoring: The APCO may exempt an applicant from the requirements of subsection 2-2-414.3 provided that the applicant demonstrates by modeling to the satisfaction of the APCO that the cumulative emission increase minus the emission reduction credits from the new or modified facility would cause air quality impacts less than the following, or may exempt an applicant from the requirements of subsection 2-2-414.3 if the existing ambient air quality concentrations in the impact area are no greater than the following:

(micrograms per cubic meter, µg/m3)

Carbon monoxide: 8-hr average	575
PM10: 24-hr average	10
Sulfur dioxide: 24-hr average	13
Lead: 3-month average	0.1
Mercury: 24-hr average	0.25
Beryllium: 24-hr average	0.0001
Fluorides: 24-hr average	0.25
Vinyl chlorides: 24-hr average	15
Total reduced sulfur: 1-hr average	10
Hydrogen sulfide: 1-hr average	0.2
Reduced sulfur compounds: 1-hr average	10
Nitrogen dioxide: annual average	14

(Amended June 15, 1994)

2-2-112 Exemption, Emissions From Abatement Equipment: The BACT requirements of Section 2-2-301 shall not apply to emissions of secondary pollutants which are the direct result of the use of an abatement device which complies with the BACT or BARCT requirements for control of another pollutant. However, the APCO shall require the use of Reasonably Available Control Technology (RACT) for control of these secondary pollutants. (Amended June 15, 1994)

2-2-113 Deleted June 15, 1994

2-2-200 DEFINITIONS

2-2-201 Emission Reduction Credit: Except as provided by subsection 2-2-201.3 an emission reduction, calculated in accordance with Section 2-2-605, which exceeds the emission reductions required by measures in the current Clean Air Plan approved by the BAAQMD or required by federal, state, or District laws, rules, and regulations. To qualify as an emission reduction credit, the emission reduction must be in excess of the reductions achieved by, or achievable by, the source using Reasonably Available Control Technology (ACT), and must also be real, permanent, quantifiable, and enforceable.

201.1 Unless calculated in accordance with the procedures of Section 2-2-605, that portion of an NSR emission cap, which was part of an APCO approved alternative baseline, shall not qualify as an emission reduction credit.

201.2 All emission reduction credits shall be enforceable by permit conditions in the authority to construct and permit to operate, except that, in the case of source closures where no permit is required for the source being shut down, the emission reduction credit shall be enforceable through appropriate contractual provisions in a legally binding and irrevocable written agreement in which provisions will be made expressly for the benefit of the District.

201.3 For the purpose of complying with the PSD requirements of Sections 2-2-111, 304, 305, 306, 308 of this Rule and 40 CFR 51.166, emission reduction credits shall not be adjusted for reductions required by measures in the current Clean Air Plan approved by the BAAQMD which exceed the reductions required by use of Reasonably Available Control Technology (RACT).

The permanence of a closure shall be identified in a letter from the source and/or in a Banking Certificate. (Amended June 15, 1994)

2-2-202 Baseline Area, PSD: All intrastate Air Quality Control Regions, as defined in 40 CFR 52.21, (and every part thereof) designated as attainment or unclassifiable under 107(d)(1)(D) or (E) of the Clean Air Act in which a source establishing a baseline date would construct or would have an air quality impact equal to or greater than 1 µg/m3 (annual average) of the pollutant for which the baseline date is established.

2-2-203 Baseline Concentration, PSD: The ambient concentration level which exists in the baseline area at the time of establishment of the applicable baseline date. A baseline concentration is determined for each pollutant for which a baseline date is established. The baseline concentration shall include the actual emissions representative of sources in existence on the applicable baseline date.

2-2-204 Baseline Date, PSD: The earliest date after December 20, 1977, for sulfur dioxide and PM_{10}, or after February 8, 1988, for nitrogen dioxide, for each baseline area on which the first complete application under Section 2-2-304 is submitted or was submitted to EPA under 40 CFR 52.21. The baseline date is established for each pollutant for which PSD increments have been established.

2-2-205 Baseline Period, PSD: The period against which a change in emissions is to be measured.

2-2-206 Best Available Control Technology (BACT): For any new or modified source, except cargo carriers, the more stringent of:

206.1 The most effective emission control device or technique which has been successfully utilized for the type of equipment comprising such a source; or

206.2 The most stringent emission limitation achieved by an emission control device or technique for the type of equipment comprising such a source; or

206.3 Any emission control device or technique determined to be technologically easible and cost-effective by the APCO; or

206.4 The most effective emission control limitation for the type of equipment comprising such a source which the EPA states, prior to or during the public comment period, is contained in an approved implementation plan of any state, unless the applicant demonstrates to the satisfaction of the APCO that such limitations are not achievable. Under no circumstances shall the emission control required be less stringent than the emission control required by any applicable provision of federal, state or District laws, rules or regulations.

The APCO shall periodically publish and update, a BACT Workbook specifying the requirements for commonly permitted sources. BACT will be determined for a source by using the workbook as a guidance document or, on a case-by-case basis, using the most stringent definition of this Section 2-2-206.

2-2-207 **California Coastal Waters:** That area between the California-Oregon border at the Pacific Ocean and ending at the California-Mexico border at the Pacific Ocean:

thence to 42.0°N	125.5°W
thence to 41.0°N	125.5°W
thence to 40.0°N	125.5°W
thence to 39.0°N	125.5°W
thence to 38.0°N	124.0°N
thence to 37.0°N	123.5°W
thence to 36.0°N	122.5°W
thence to 35.0°N	121.5°W
thence to 34.0°N	120.5°W
thence to 33.0°N	119.5°W
thence to 32.5°N	118.5°W

2-2-208 **CEQA:** The California Environmental Quality Act, Public Resources Code, Section 21000, et seq.

2-2-209 **Class I Areas, PSD:** Point Reyes National Seashore and any other Class I Area under Part C of the Clean Air Act. All other areas in the District are Class II Areas.

2-2-210 **Complete Application:** An application for an Authority to Construct a new or modified source which contains the following:

210.1 Sufficient information for the APCO to determine the emissions from such new or modified source and to quantify emissions from the proposed source(s) of offsets.

210.2 Any information requested by the APCO in order to determine the air quality impact of such new or modified source or facility.

210.3 Fees for New and Modified Sources, as described in Regulation 3-302.

210.4 The information required by Sections 2-2-414 and 417 provided the application is subject to the PSD requirements of Sections 2-2-304, 305 or 308.

210.5 CEQA-related information which satisfies the requirements of Regulation 2-1-426.

210.6 A certification stating whether the source triggers the requirements of Section 2-2-413.

210.7 A specific designation of all information contained in the application that is asserted to be a trade secret pursuant to Section 6254.7 of the Government Code and not a public record. Such designated information shall be provided in such a manner whereby it may be easily separated from information which is not asserted to be a trade secret. The applicant shall include, for each separate portion of the application which is asserted to be a trade secret, a statement signed by a responsible representative of the applicant identifying

that portion of Government Code Section 6254.7 (d) upon which the assertion is based and a brief statement setting forth the basis for this assertion.
(Amended November 20, 1991)

2-2-211 **Contiguous Properties:** Two or more parcels of land with a common boundary or separated solely by a public roadway or other public right-of-way.

2-2-212 **Cumulative Increase:** The aggregate sum of all increases in emissions of any given pollutant from a new, or modified source permitted after April 5, 1991 (unless a PSD Baseline Date is applicable), pursuant to authorities to construct or permits to operate excluding emissions from a source which has lost its permit exemption per Regulation 2-1-424. (Amended June 15, 1994)

2-2-213 **EIR:** Environmental Impact Report, as defined in Section 21061 of the Public Resources Code.

2-2-214 **Emission Offsets:** Emission reduction credits which are used to mitigate cumulative increases of emissions. Emission offsets are emission reduction credits, from the District Emissions Bank, approved in accordance with Regulation 2, Rule 4, or contemporaneous emission reduction credits occurring after the submittal of an application for a new or modified source but prior to the issuance of the permit to operate any such source, calculated in accordance with Section 2-2-605. Notwithstanding any existing permit conditions, that portion of an NSR emission cap, which was based on an APCO approved alternative baseline, may not be used as a source of offsets unless the proposed reduction is calculated in accordance with procedures specified in Section 2-2-605. (Amended June 15, 1994)

2-2-215 **Facility:** Any property, building, structure or installation (or any aggregation of facilities) located on one or more contiguous or adjacent properties and under common ownership or control of the same person that emits or may emit any air pollutant and is considered a single major industrial grouping (identified by the first two-digits of the applicable code in *The Standard Industrial Classification Manual*). In addition, facilities which include cargo loading or unloading from cargo carriers other than motor vehicles shall include the cargo carriers as part of the source which receives or loads the cargo. Accordingly, all emissions from such carriers while operating in the District, or within California Coastal Waters adjacent to the District, shall be included as part of the source emissions.

215.1 For determining the cumulative increase at a facility subject to the offset requirements of Sections 2-2-302 and 303, related sources on a single property or contiguous properties, even though under different ownership, or related sources on non-contiguous properties under the same ownership shall be considered one facility. Related sources are those sources where the operation of one is dependent upon or affects the operation of the other.

215.2 Notwithstanding the definition in Section 2-2-215 above, the emissions related to cargo carriers shall not be included when determining applicability of the requirements of Sections 2-2-304, 2-2-308, 2-6-301, and 2-6-310.

215.3 For determining the cumulative increase at a facility subject to the offset requirements of Sections 2-2-302 and 303, facilities under the same ownership or entitlement to use that are located within a distance of three miles, property line to property line, shall be considered one facility if the facilities have the same first two digits in their Standard Industrial Classification codes, as determined from *The Standard Industrial Classification Manual.*
(Amended November 3, 1993)/.

2-2-216 **Feasible:** Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors, not in conflict with the mandated responsibilities and duties of the District.

2-2-217 **Federal Land Manager:** With respect to any lands in the United States, the Secretary of the department with authority over such lands.

2-2-218 **Federally Enforceable:** All limitations and conditions that are enforceable by the Administrator of the U. S. EPA, including requirements developed pursuant to 40 CFR Parts 60 (NSPS), 61 (NESHAPS), 63 (HAP), 70 (State Operating Permit Programs) and 72 (Permits Regulation, Acid Rain), requirements contained in the State Implementation Plan (SIP) that are applicable to the District, any District permit requirements established pursuant to 40 CFR 52.21 (PSD) or District regulations approved pursuant to 40 CFR Part 51, Subpart I (NSR), and any operating permits issued under an EPA-approved program that is a part of the SIP and expressly requires adherence to any permit issued under such program.

(Amended November 3, 1993).

2-2-219 **Impact Area:** The area in which a new or modified facility would have a significant air quality impact.

2-2-220 **Major Facility:** Any facility which the APCO determines to emit, on a pollutant specific basis, or determines will emit as a result of the issuance of an authority to construct, 100 tons per year or more of a specific pollutant subject to regulation under the federal Clean Air Act is a major facility for that pollutant.

220.1 Major Facility, MFR (Regulated Air Pollutants): A facility that has the potential to emit 100 tons per year or more of any regulated air pollutant. For fugitive emissions of said pollutants, only those facilities from categories listed in 40 CFR 70.2 "Definitions - *Major source* (2)" shall be included for determining whether the facility is a major facility. Once any facility is determined to be a major facility, all fugitive emissions from the facility shall be included in calculating the facility's emissions.

220.2 Major Facility, MFR (Hazardous Air Pollutants): A facility that has the potential to emit 10 tons per year or more of a single hazardous air pollutant or 25 tons per year or more of a combination of hazardous air pollutants, or such lesser quantity as the EPA Administrator may establish by rule. All fugitive emissions of hazardous air pollutants are included in determining a facility's potential to emit. For radionuclides, the definition of a major facility shall be specified by the EPA Administrator by rule.

220.3 Major Facility, PSD: A facility, subject to any requirement of Section 2-2-304, 305, 306, 308 or 309, which emits or has the potential to emit 100 tons per year or more of any air pollutant if, it is one of the twenty eight (28) PSD source categories listed in Section 169(1) of the federal Clean Air Act, or 250 tons per year or more for an unlisted category,

(Amended November 3, 1993; Amended June 15, 1994)

2-2-221 **Major Modification of a Major Facility:** Any modification at an existing major facility that the APCO determines will cause an increase of the facility's emissions by the following amounts or more:

POC:	40 tons per year
NOx:	40 tons per year
SO2:	40 tons per year
PM_{10}:	15 tons per year
CO:	100 tons per year

(Amended June 15, 1994)

2-2-222 **Modeling, PSD:** Estimates of ambient concentrations of pollutants based on applicable air quality models, data bases and other requirements acceptable to the APCO. For modeling required by Sections 2-2-304 through 308 and 414, the air quality models, data bases and other requirements shall also be in accordance with the "Guideline on Air Quality Models", EPA-450/2-78-027R, July 1986 or as revised). Where an air quality impact model specified in the "Guideline on Air Quality Models"is inappropriate, the model may be modified or another model substituted provided that written approval from the Administrator of the EPA is obtained and the application is submitted for public comment in accordance with Section 2-2-405. Methods such as those outlined in the "Workbook for the Comparison of Air Quality Models", April 1977 (or as revised) shall be used to determine the comparability of air quality models. For modeling compliance with air quality standards, other than federal ambient air quality standards or federal PSD increments, applicable models must be approved by the APCO.

2-2-223 **Modified Source or Facility:** Any existing source or facility which will undergo a physical change, change in the method of operation of, or addition to an existing facility which results or may result in either an increase, of the permitted emission level of a source, of any air pollutant subject to District control, or the emission of any such air pollutant not previously emitted in a quantity which would cause the source to fail an air toxic screening analysis performed in accordance with the current Air Toxic Risk Screening Procedure. Routine maintenance or repair or a change in ownership of itself shall not be considered a modification. Unless previously limited by a permit condition the following shall not be considered changes in method of operation:

223.1 An increase in the production rate if such increase does not exceed the operating design capacity or the actual demonstrated capacity of the facility as approved by the APCO.

223.2 An increase in the hours of operation.

223.3 Change in ownership.

223.4 Use of an alternative fuel or raw material if the source was capable of using such fuel or raw material prior to July 1, 1972, or had received permits to use such fuel or raw material. (Amended June 15, 1994)

2-2-224 **Net Air Quality Benefit:** A net improvement of air quality as determined by the APCO resulting from emission reduction credits impacting the same general area affected by the new or modified source and which will be consistent with reasonable further progress towards the attainment of the applicable air quality standard. (Amended June 15, 1994)

2-2-225 **New Source:** A source which meets at least one of the following criteria shall be considered a new source:

225.1 Except sources which lose a permit exemption in accordance with Regulation 2-1-424, any source constructed or proposed to be constructed after March 7, 1979 which never had a valid District authority to construct or permit to operate.

225.2 Any source which was not in operation for a period of one year or more and did not hold a valid District permit to operate during this period of non-operation, occurring after March 7, 1979.

225.3 Any relocation of an existing source to a non-contiguous property.

225.4 Any replacement of a source, including an identical replacement of a source, occurring after March 7, 1979, regardless of when the original source was constructed.

225.5 Except as provided in Section 2-2-420, any replacement of an identifiable source within a group of sources permitted together under a single source number for the purpose of District permitting convenience. This specifically includes the replacement of identifiable pieces of pollutant emitting equipment which comprise a semiconductor fabrication area.

2-2-226 **Organic Compound:** Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate and methane.

2-2-227 **Organic Compound, Non-Precursor (NPOC):** The following are considered organic compound non-precursor .

methylene chloride, chloropentafluoroethane (CFC-115), 1,1,1-trichloroethane, 1,1,1-trifluoro 2,2-dichloroethane (HCFC-123), 2-chloro 1,1,1,2-tetrafluoroethane (HCFC-124), trichlorofluoromethane (CFC-11), 1,1,2 trichloro 1,2,2-trifluoroethane (CFC-113), pentafluoroethane (HFC-125), 1,1,2,2-tetrafluoroethane (HFC-134), 1,1,1,2-tetrafluoroethane (HFC-134a), dichlorodifluoromethane (CFC-12), 1,1-dichloro 1-fluoroethane (HCFC-141b), 1-chloro 1,1-difluoroethane (HCFC-142b) 1,1,1-trifluoroethane (HFC-143a), 1,2-dichloro 1,1,2,2-tetrafluoroethane (CFC-114), 1,1-difluoroethane (HFC-152a) chlorodifluoromethane (HCFC-22) trifluoromethane (HFC-23); and perfluorocarbons which fall into these classes:

(1) Cyclic, branched, or linear, completely fluorinated alkanes,
(2) Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations,
(3) Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations, and
(4) Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

In addition, any compound designated as having a negligible contribution to photochemical reactivity by the U.S. Environmental Protection Agency as published in the Federal Register shall be considered a Non-Precursor Organic Compound.

(Amended June 15, 1994)

2-2-228 **Organic Compound, Precursor (POC):** Any organic compound as defined in Section 2-2-226 excepting the non-precursor organic compounds defined in Section 2-2-227.

2-2-229 **Particulate Matter (PM):** Any airborne finely divided solid or liquid material with an aerodynamic diameter smaller than 100 microns.

2-2-230 **PM_{10}:** Particulate matter with aerodynamic diameter smaller than or equal to a nominal 10 microns.

2-2-231 **Point of Maximum Ground Level Impact:** The ground level geographic location where the projected air pollution concentrations for a given pollutant resulting from the new or modified facility emissions together with the background pollutant concentration for that given pollutant results in the maximum ground level pollutant concentration. The background pollutant concentration means the ambient concentration level resulting from the actual emissions of sources in existence and the projected ambient concentration levels for sources already permitted but not yet in operation. If the general public is effectively excluded from the property on which the point of maximum ground level impact is located, and the property is owned or controlled by the owner of the new or modified facility, such property shall not be considered as the point of maximum ground level impact.

2-2-232 **Prevention of Significant Deterioration (PSD) Increments:** In areas designated as Class I, II or III, increases in pollutant concentration over the baseline concentration shall be limited to the following:

MAXIMUM ALLOWABLE INCREASE
(Micrograms per cubic meter, µg/m3)
CLASS I

POLLUTANT	
Particulate Matter:	
PM_{10} Annual arithmetic mean	4
PM_{10} 24-hr maximum	8
Sulfur Dioxide:	
Annual arithmetic mean	2
24-hr maximum	5
3-hr maximum	25
Nitrogen Dioxide:	
Annual arithmetic mean	2.5

CLASS II

Particulate Matter:	
PM10 Annual arithmetic mean	17
PM10 24-hr maximum	30
Sulfur Dioxide:	
Annual arithmetic mean	20
24-hr maximum	91
3-hr maximum	512
Nitrogen Dioxide:	
Annual arithmetic mean	25

CLASS III

Particulate Matter:	
PM_{10} Annual arithmetic mean	34
PM_{10} 24-hr maximum	60
Sulfur Dioxide:	
Annual arithmetic mean	40
24-hr maximum	182
3-hr maximum	700
Nitrogen Dioxide:	
Annual arithmetic mean	50

For any period other than an annual period, the applicable increase may be exceeded during one such period per year at any one location.

(Amended June 15, 1994)

2-2-233 **Significant Air Quality Impacts, PSD:** Ambient air concentrations, resulting from new or modified facility emissions, that exceed any of the following levels:

SIGNIFICANT AIR QUALITY IMPACTS
(Micrograms per cubic meter, µg/m3)

POLLUTANT	
Particulate Matter:	
PM_{10}, Annual arithmetic mean	1.0
PM_{10}, 24-hr maximum	5
Sulfur Dioxide:	
Annual arithmetic mean	1.0
24-hr maximum	5
3-hr maximum	25

Nitrogen Dioxide:

Annual arithmetic mean 1.0

1-hr maximum 19

Carbon Monoxide:

8-hr maximum 500

1-hr maximum 2000

(Amended June 15, 1994)

2-2-234 **Source:** Any article, machine, equipment, operation, contrivance or related groupings of such which may produce and/or emit air pollutants.

2-2-235 **Year, Month, and Day:** Unless otherwise defined, a year shall be any rolling 365 consecutive day period, a month shall be any rolling 31 consecutive day period and a day shall be any rolling 24 consecutive hour period.

2-2-236 **Hazardous Air Pollutant:** Any pollutant that is listed pursuant to Section 112(b) of the federal Clean Air Act. (Adopted November 3, 1993)

2-2-237 **Major Facility Review (MFR):** Plantwide review of sources, emissions and regulatory requirements at facilities including, but not limited to, major facilities, phase II acid rain facilities, subject solid waste incinerator facilities, designated facilities, and synthetic minor facility candidates, which are potentially subject to the permitting requirements of Regulation 2, Rule 6, and Title V of the federal Clean Air Act. (Adopted November 3, 1993)

2-2-238 **Potential to Emit:** The maximum capacity of a facility to emit a pollutant, based on its physical and operational design. Any physical or operational limitation on the capacity of the facility to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as a part of its design only if the limitation, or the effect it would have on emissions, is federally enforceable. (Adopted November 3, 1993)

2-2-239 **Regulated Air Pollutant:** The following air pollutants are regulated:

239.1 Nitrogen oxides and volatile organic compounds;

239.2 Any pollutant for which a national ambient air quality standard has been promulgated;

239.3 Any Class I or Class II ozone depleting substance subject to a standard promulgated under Title VI of the federal Clean Air Act;

239.4 Any pollutant that is subject to any standard promulgated under Section 111 of the federal Clean Air Act; and

239.5 Any pollutant that is subject to any standard promulgated under Section 112 of the Clean Air Act. (Adopted November 3, 1993)

2-2-240 **Best Available Retrofit Control Technology (BARCT):** An emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy and economic impacts by each class or category of source and has been adopted or proposed to be adopted as part of the current Clean Air Plan required by the California Clean Air Act of 1988. (Adopted June 15, 1994)

2-2-241 **Replacement Source:** An identical source or a functionally equivalent source. (Adopted June 15, 1994)

2-2-242 **Contemporaneous:** The five year period of time immediately prior to the date of application for an authority to construct, permit to operate. (Adopted June 15, 1994)

2-2-243 **Reasonably Available Control Technology (RACT):** For sources which are to continue operating, RACT is the lowest emission limit that can be achieved by the specific source by the application of control technology taking into account technological feasibility and cost-effectiveness, and the specific design features or extent of necessary modifications to the source. For sources which are or will be shut-down, RACT is the lowest emission limit that can be achieved by the application of control technology to similar, but not necessarily identical categories of sources, taking into account technological feasibility and cost-effectiveness of the application of the control technology to the category of sources only and not to the shut-down source.

(Adopted June 15, 1994)

2-2-300 **STANDARDS**

2-2-301 **Best Available Control Technology Requirement:** An applicant for an authority to construct or a permit to operate shall apply BACT to any new or modified source:

301.1 Which results in an emission from a new source or an increase in emissions from a modified source of precursor organic compounds (POC), non-precursor organic compounds (NPOC), nitrogen oxides (NO_x), sulfur dioxide (SO_2), PM_{10} or carbon monoxide (CO) in excess of 10.0 pounds per highest day or a cumulative increase since April 5, 1991 for a modified source of 10 pounds per highest day, or;

301.2 Which will result in a cumulative increase at the facility since December 1, 1982, in excess of any of the following daily and/or annual amounts:

	ANNUAL AVERAGE kg/yr (ton/yr)		DAILY g/day (lb/day)	
Lead	530	(0.6)	1450	(3.2)
Asbestos	6	(0.007)	17	(0.04)
Beryllium	0.3	(0.0004)	0.9	(0.002)
Mercury	88	(0.1)	240	(0.5)
Fluorides	2720	(3)	7450	(16)
Sulfuric Acid Mist	6350	(7)	17400	(38)
Hydrogen Sulfide	9050	(10)	24800	(55)
Total Reduced Sulfur	9050	(10)	24800	(55)
Reduced Sulfur Compounds	9050	(10)	24800	(55)

(Amended June 15, 1994)

2-2-302 **Offset Requirements, Precursor Organic Compounds and Nitrogen Oxides, NSR:** Except as provided by Sections 2-2-313 or 421, before the APCO may issue an authority to construct or a permit to operate for a new or modified source at a facility which emits 50 tons per year or more or will be permitted to emit 50 tons per year or more, on a pollutant specific basis, of precursor organic compounds or nitrogen oxides, federally enforceable emission offsets shall be provided, for the emission from the new or modified source and any pre-existing cumulative increase, minus any onsite contemporaneous emission reduction credits determined in accordance with Section 2-2-605, at a 1.15 to 1.0 ratio. Before the APCO may issue an authority to construct or a permit to operate for a new or modified source at a facility which emits or will be permitted to emit more than 15 tons per year but less than 50 tons per year, on a pollutant specific basis, of precursor organic compounds or nitrogen oxides, emission offsets shall be provided, by the District at a 1.0 to 1.0 ratio for the emission from the new or modified source and any pre-existing cumulative increase, minus any onsite contemporaneous emission reduction credits determined in accordance with Section 2-2-605, for the Small Facility Banking

account in the District's Emissions Bank in accordance with the provisions of Regulations 2-4-414.

The APCO shall determine the total facility emissions, on a pollutant specific basis, by adding the emissions from the proposed new or modified source(s) to the most recent District Emissions Inventory, adjusted for any errors and adjusted upward for any permitted levels of emissions not currently being emitted.

302.1 Emission reduction credits of nitrogen oxides may be used to offset increased emissions of precursor organic compounds at the offset ratio specified above in Section 2-2-302.

302.2 Emission reduction credits of precursor organic compounds may be used to offset increased emissions of nitrogen oxides at the offset ratio specified above in Section 2-2-302, provided that the PSD requirements of Section 2-2-304, if applicable, are met.

(Amended November 20,1991; Amended June 15, 1994)

2-2-303 Offset Requirement, PM10 and Sulfur Dioxide, NSR: Except as provided by Sections 2-2-313 or 421, before the APCO may issue an authority to construct or a permit to operate for a new or modified source, of PM10 or sulfur dioxide located at a Major Facility, which will result in a cumulative increase minus any contemporaneous emission reduction credits at the facility, for that pollutant, in excess of 1.0 ton per year since April 5, 1991, emission offsets shall be provided, for the emission from the new or modified source and any pre-existing cumulative increase, minus any onsite contemporaneous emission reduction credits determined in accordance with Section 2-2-605, at a 1.0:1.0 ratio or at a ratio, approved by the APCO, in accordance with subsection 2-2-303.1.

303.1 Emission reduction credits of nitrogen oxides and/or sulfur dioxide may be used to offset increased emissions of PM_{10} at offset ratios deemed appropriate by the APCO.

A facility which emits less than 100 tons of any pollutant, subject to this section, may voluntarily provide emission offsets for all, or any portion, of their cumulative increase, at the ratio required above.

(Amended November 20, 1991; Amended June 15, 1994)

2-2-304 PSD Requirement: In accordance with the Prevention of Significant Deterioration provisions of 40 CFR 51.166 of the Code of Federal Regulations, the APCO shall not issue an authority to construct or a permit to operate to:

304.1 A new major facility which will emit 100 tons per year or more, if, it is one of the twenty eight (28) PSD source categories listed in Section 169(1) of the federal Clean Air Act, or 250 tons per year or more for an unlisted category, of any pollutant subject to regulation under the federal Clean Air Act unless the applicant demonstrates by modeling in accordance with Section 2-2-414 to the satisfaction of the APCO that such emissions will not interfere with the attainment or maintenance of the applicable sulfur dioxide or nitrogen dioxide NAAQS at the point of maximum ground level impact and will not cause an exceedance of a sulfur dioxide or a nitrogen dioxide PSD increment.

304.2 A major modification of a major facility if the cumulative increase, from the PSD Baseline Date, minus the contemporaneous emission reduction credits at the facility are in excess of 40 tons per year of sulfur dioxide or nitrogen oxides unless the applicant demonstrates by modeling in accordance with Section 2-2-414 to the satisfaction of the APCO that such emissions will not interfere with the attainment or maintenance of the applicable sulfur dioxide or nitrogen dioxide NAAQS at the point of maximum ground level impact and will not cause an exceedance of a sulfur dioxide or a nitrogen dioxide PSD increment.

304.3 A major modification of a major facility if the cumulative increase, from the PSD Baseline Date, minus the contemporaneous emission reduction credits at the facility are in excess of 15 tons per year of PM_{10} unless the applicant

demonstrates by modeling in accordance with Section 2-2-414 to the satisfaction of the APCO that such emission will not interfere with the attainment or maintenance of the PM10 federal ambient air quality standard at the point of maximum ground level impact and will not cause an exceedance of a PM10 PSD increment. (Amended June 15, 1994)

2-2-305 Carbon Monoxide Modeling Requirement, PSD: In accordance with the Prevention of Significant Deterioration provisions of 40 CFR 51.166 of the Code of Federal Regulations, the APCO shall not issue an authority to construct or a permit to operate for:

305.1 A new major facility which will emit 100 tons per year or more, if it is one of the twenty eight (28) PSD source categories listed in Section 169(1) of the federal Clean Air Act, or 250 tons per year or more for an unlisted category, of any pollutant subject to regulation under the federal Clean Air Act, unless the applicant demonstrates by modeling in accordance with Section 2-2-414, to the satisfaction of the APCO, that the net air quality impact of the cumulative increase of emissions of CO from the new or modified facility and all contemporaneous emission reduction credits to be provided by the applicant will not interfere with the attainment or maintenance of the CO NAAQS in the District or any contiguous air basin, or

1.1 The cumulative increase minus the contemporaneous emission reduction credits from the facility are less than or equal to zero.

305.2 A major modification of a major facility with an increase in excess of 100 tons per year of carbon monoxide, unless the applicant demonstrates by modeling in accordance with Section 2-2-414, to the satisfaction of the APCO, that the net air quality impact of the cumulative increase of emissions of CO from the new or modified facility and all contemporaneous emission reduction credits to be provided by the applicant will not interfere with the attainment or maintenance of the CO NAAQS in the District or any contiguous air basin, or

2.1 The cumulative increase minus the contemporaneous emission reduction credits from the facility are less than or equal to zero.

(Amended June 15, 1994)

2-2-306 Non-Criteria Pollutant Analysis, PSD: In accordance with the Prevention of Significant Deterioration provisions of 40 CFR 51.166 of the Code of Federal Regulations, unless the applicant has performed all analysis required by Sections 2-2-414 and 417 for the applicable pollutants, the APCO shall not issue an authority to construct or a permit to operate to a new or modified facility if the new or modified facility will emit greater than 100 tons per year of carbon monoxide, PM_{10}, sulfur dioxide, precursor organic compounds or nitrogen oxides, and the cumulative increases, minus the contemporaneous emission reduction credits from the facility occurring since December 1, 1982, pursuant to authorities to construct and permits to operate, are in excess of the annual average amounts specified in subsection 2-2-301.2. (Amended June 15, 1994)

2-2-307 Denial, Failure of all Facilities to be in Compliance: The APCO shall deny an authority to construct for a new major facility or a major modification of an existing major facility unless the applicant provides a list, certified under penalty of perjury, of all major facilities within the state of California owned or operated by the applicant or by any entity controlling, controlled by, or under common control with the applicant and demonstrates by certifying under penalty of perjury that they are either in compliance, or on a schedule of compliance, with all applicable state and federal emission limitations and standards. The APCO may request the applicant to provide any technical information used by the applicant to certify compliance.

(Amended June 15, 1994)

2-2-308 **Class I Area Requirements, PSD:** A facility for which the cumulative increases minus the contemporaneous emission reduction credits occurring since the PSD Baseline Date, are greater than zero, and which would construct in a Class I Area or within 10 kilometers (6.2 miles) of a Class I Area, and would have an impact on such area equal to or greater than 1 microgram per cubic meter, shall use BACT on the new or modified facility and shall not cause or contribute to the exceedance of any NAAQS at the point of maximum ground level impact or any PSD increment set forth in Section 2-2-232, and shall perform all analyses required by Sections 2-2-414 and 417. (Amended June 15, 1994)

2-2-309 **Denial for Air Quality Related Values, PSD:** The APCO shall deny any permit application subject to the requirements of Section 2-2-308 where it has been demonstrated by the Federal Land Manager that the permit would authorize emissions which would have an adverse impact on the air-quality-related values (including visibility) of a Class I Area, provided that such demonstration is completedprior to the termination of the public comment period and that the APCO concurs with that demonstration.

2-2-310 **Denial, Failure to Use BACT:** The APCO shall deny an authority to construct if the APCO finds that the application is subject to Section 2-2-301 and, after notification in writing, the applicant has not provided a control device or technique meeting the requirements defined in Section 2-2-206.

2-2-311 **Denial, Failure to Provide Offsets:** The APCO shall deny an authority to construct if the APCO finds that the application is subject to Sections 2-2-302 or 303 and, after notification in writing, the applicant has not provided the required offsets to mitigate the emissions increase.

2-2-312 **Denial, Failure to Meet Permit Conditions:** The APCO shall deny a permit to operate, after providing written notification to the applicant, if the equipment is operating in violation of any condition specified in the authority to construct, or if any source used to provide offsets for the project that is owned or operated by the applicant is operating in violation of any permit condition limiting emissions such that the required offsets are not being provided.

2-2-313 **Offset Requirements, Replacement Sources of Precursor Organic Compounds and Nitrogen Oxides, NSR:** Before the APCO may issue an authority to construct or a permit to operate for a replacement source at a facility which has actual emissions of 50 tons per year or more, on a pollutant specific basis, of precursor organic compounds or nitrogen oxides, offsets requirements shall be met: 1.) either in accordance with the requirements of Section 2-2-302, or 2.) in accordance with the provisions of Section 2-2-608, provided no increase in the permitted level of the replaced source, adjusted for BACT, is authorized. (Adopted June 15, 1994)

2-2-314 **Federal New Source Review Applicability:** The requirements of 40 CFR 51.165 are incorporated, by reference, as part of this rule. (Adopted June 15, 1994)

2-2-315 **Federal Prevention of Significant Deterioration Applicability:** The requirements of 40 CFR 51.166 are incorporated, by reference as part of this rule. (Adopted June 15, 1994)

2-2-316 **No Net Increase Status Report:** The APCO shall publish in conjunction with the triennial update of the Clean Air Plan (CAP), a report demonstrating that the District's permitting program complies with the no net increase requirements of Section 40919 (b) of the Health and Safety Code. This report shall demonstrate that sufficient offsets have been provided, as required by Section 2-2-302, for all permits issued during the previous three year CAP period. This report shall be forwarded to the California Air Resources Board, Stationary Source Division for approval. (Adopted June 15, 1994)

2-2-400 ADMINISTRATIVE REQUIREMENTS

2-2-401 **Application:** In addition to the requirements of Regulation 2-1-402, applications for authorities to construct facilities subject to Rule 2 shall include all of the following:

401.1 For new facilities, which will emit, and for a modification which will increase emissions more than 100 tons per year of carbon monoxide or 40 tons per year of either precursor organic compounds or nitrogen oxides, an analysis of alternative sites, sizes, production processes, and environmental control techniques for such proposed source which demonstrate that benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction or modification.

401.2 The information required by the lists and criteria adopted pursuant to Section 65940 of the California Government code that are in effect on the date the application is filed.

401.3 CEQA-related information which satisfies the requirements of Regulation 2-1-426. (Amended November 20, 1991; Amended June 15, 1994)

2-2-402 **Complete Application:** Except for an application which is subject to the publication and public comment requirements of Section 2-2-405, the APCO shall determine whether an application for an authority to construct is complete not later than 21 calendar days following receipt of the application, or after a longer time period agreed upon by both the applicant and the APCO. If the APCO determines that the application is not complete, the applicant shall be notified in writing of the decision, specifying the information that is required. Upon receipt of any resubmittal of the application a new 21 day period to determine completeness shall begin. For an application which is subject to the publication and public comment requirements of Section 2-2-405, the completeness review period(s) shall be 30 days. The application shall be deemed complete on the date of receipt of all information required for completeness. Upon determination that the application is complete, the APCO shall notify the applicant in writing. If applicable, such written notification shall include the District's determination that its evaluation of the application will be covered by the specific procedures, fixed standards and objective measurements set forth in Volume II of the District's Manual of Procedures and that the District's evaluation of that permit application will be classified as ministerial and will accordingly be exempt from CEQA review. Thereafter only information regarding offsets, or information to clarify, correct or otherwise supplement the information submitted in the application may be requested. (Amended June 7, 1995)

2-2-403 **Authority to Construct:** Within 49 days following the acceptance of an application as complete, which is not subject to the publication and public comment requirements of Section 2-2-405, or with the consent of the applicant, such longer period as may be agreed upon, the APCO shall make a decision as to whether an authority to construct shall be approved or denied. Written notice of the APCO's decision shall be provide to the applicant and to any person who request such specific notification.

403.1 Notwithstanding this 49-day limit, the APCO shall not take final action for any project for which an Environmental Impact Report or a Negative Declaration has been prepared until a Final EIR for that project has been certified, or a Negative Declaration for that project has been approved, and the APCO has considered the information in that Final EIR or Negative Declaration. For cases in which the 49-day time period has elapsed, the APCO shall take final action on the application within 30 days after the certification of the Final EIR or approval of the Negative Declaration. This subsection shall not apply to any project which is exempt from the District's CEQA requirements pursuant to Regulation 2-1-311 or 2-1-312.(Amended November 20, 1991; June 7, 1995)

2-2-404 **Authority to Construct, Preliminary Decision:** Within 90 days following the acceptance of an application as complete, which is subject to the requirements of Section 2-2-405, or longer period necessary to satisfy the requirements of Section 2-2-414, providing that any fees required in accordance with Regulation 3-318 are paid, or with the consent of the applicant, such longer period as may be agreed upon, the APCO shall make a preliminary decision as to whether an authority to construct shall be approved, or denied. Final action on this application will be taken in accordance with the requirements of Section 2-2-407.

404.1 When the District is the CEQA Lead Agency for a project, the 90-day limit for issuing a preliminary decision shall be suspended until the draft EIR or Negative Declaration is available for the APCO's consideration and public review. (Amended November 20, 1991)

2-2-405 **Publication and Public Comment:** If the application is for a new major facility or a major modification of an existing major facility or requires a PSD analysis, the APCO shall within 10 days of the notification of the applicant, cause to have published in at least one newspaper of general circulation within the District, a prominent notice stating the preliminary decision of the APCO, the location of the information available pursuant to Section 2-2-406, and inviting written public comment for a 30 day period following the date of publication. Written notice of the preliminary decision shall be sent to the ARB, the regional office of the EPA and adjacent districts. A copy of this notice shall be provided to any person who requests such specific notification in writing. During this period, which may be extended by the APCO, the APCO may elect to hold a public meeting to receive verbal comment from the public. The written notice shall contain the degree of PSD increment consumed.

405.1 In addition to the above requirements, for any application for which the District is a Lead Agency under CEQA, the public notice required pursuant to this Section 2-2-405 shall provide public notice of the availability of a Draft EIR, a Negative Declaration or a Notice of Exemption, as applicable.

2-2-406 **Public Inspection:** The APCO shall make available for public inspection, at District headquarters, the information submitted by the applicant, and if applicable the APCO's analysis, and the preliminary decision to grant or deny the authority to construct including any proposed conditions, including the reasons therefore. In making information available for public inspection, the confidentiality of trade secrets, as designated by the applicant prior to completion of the application, shall be considered in accordance with Section 6254.7 of the Government Code. Furthermore, all such information shall be transmitted, upon the date of publication, to the ARB and the regional office of the EPA if the application is subject to the requirements of Section 2-2-405.

2-2-407 **Authority to Construct, Final Action:** If the application is for a new major facility or a major modification of an existing major facility or requires a PSD analysis, the APCO shall within 180 days following the acceptance of the application as complete, or a longer time period agreed upon, take final action on the application after considering all public comments. Written notice of the final decision shall be provided to the applicant, the ARB and the EPA, and, if the District is a Lead Agency under CEQA, to any person who has commented on a Draft EIR. The final action will also be published in at least one newspaper of general circulation within the District, and the notice and supporting documentation shall be available for public inspection at District headquarters.

407.1 Notwithstanding the requirement of this Section 2-2-407 that the APCO shall act within 180 days after the application is accepted as complete, the APCO shall not take final action on the application for any project for which an Environmental Impact Report or a Negative Declaration has been prepared pursuant to the requirements of CEQA until a Final EIR for that project has

been certified and the APCO has considered the information contained in that Final EIR, or a Negative Declaration for that project has been approved. If the specified 180 day period has elapsed prior to the certification of the Final EIR or the approval of the Negative Declaration, the APCO shall take final action on the application within 30 days after the certification of the Final EIR or approval of the Negative Declaration.

2-2-408 **Appeal:** The following actions of the APCO may be appealed:

408.1 In accordance with Section 42302 of the Health and Safety Code, an applicant for an authority to construct which has been denied may request, within 10 days after receipt of the written notice to deny, the Hearing Board of the District to hold a hearing on whether or not the authority to construct was properly denied.

408.2 In accordance with Section 42302.1 of the Health and Safety Code, within 10 days of any decision of the APCO pertaining to the issuance of an authority to construct, any aggrieved person who, in person or through a representative, appeared, submitted written testimony, or otherwise participated in the action before the District may request the Hearing Board of the District to hold a public hearing to determine whether the authority to construct was properly issued or for an order modifying or reversing that decision. Such appeals shall be filed in writing and contain a summary of the issues to be raised. The Hearing Board shall consider the appeal at a public hearing within 30 days of the filing of the appeal. The Hearing Board may reverse or modify the decision of the APCO if it determines that the decision was erroneous.

(Amended November 20, 1991)

2-2-409 **Requirements, Permit to Operate:** As a condition for the issuance of a Permit to Operate, the APCO shall require that the new or modified source and the sources which provide offsets be operated in the manner assumed in making the analysis required to determine compliance with this Regulation.

409.1 The permit to operate of any source used to provide offsets shall be conditioned to insure that the emission reductions will be enforceable and shall continue for the reasonably expected life of the proposed source. If offsets are obtained from a source for which there is no permit to operate, either a permit shall be obtained or a written contract shall be required between the applicant and the owner or operator of such source, which contract, by its terms, shall be enforceable by the APCO to ensure that such reductions will continue for the duration of the life of the proposed source.

2-2-410 **Issuance, Permit to Operate:** The APCO shall issue a permit to operate a source subject to the requirements of this Rule if it is determined that any offsets required, as a condition of an authority to construct or amendment to a permit to operate, will commence no later than the initial operation of the new source or within 90 days after initial operation of the modified source, and that the offsets shall be maintained throughout the operation of the new or modified source which is the beneficiary of the offsets. Further, the APCO shall determine that all conditions specified in the authority to construct have been or will be likely complied with by any dates specified. Where a new or modified source is, in whole or in part, a replacement for an existing source on the same property, the APCO may allow a maximum of 90 days as a start-up period for simultaneous operation of the existing source and the new source or replacement.

2-2-411 **Permit to Operate, Final Action:** The APCO shall take final action to approve, approve with conditions, or disapprove a permit to operate a source subject to this Rule within 60 days after start-up of the new or modified source. However, failure to act within the 60 day period, unless the time period is extended with the written concurrence of the applicant, shall be deemed to be a denial of the permit. Such

denial may be appealed to the Hearing Board in accordance with the provisions of Regulation 2-1-410. (Amended November 20, 1991)

2-2-412 Source Obligation, Relaxation of Enforceable Conditions: At such time as the applicability of any requirement of this Rule would be triggered by an existing source or facility, solely by virtue of a relaxation of any enforceable limitation on the capacity of the source or facility to emit a pollutant, then the requirements of this Rule shall apply to the source or facility in the same way as they would apply to a new or modified source or facility otherwise subject to this Rule.

2-2-413 Public Notice, Schools: Prior to making a Preliminary Decision in accordance with Section 2-2-404 on an application for an authority to construct a new or modified source which emits any substance into the ambient air which is on the list required to be prepared pursuant to subdivision (a) of Section 25532 and Section 44321 of the Health and Safety Code and which is located within 1000 feet from the outer boundary of a school, the APCO shall:

413.1 Prepare a public notice in which the proposed new or modified source, and the proposed emissions, are fully described.

413.2 Distribute the notice, prepared in accordance with subsection 2-2-413.1, at the expense of the applicant, to the parents of children in any school within one-quarter mile of the source and to each address within a radius of 750 feet from the outer property line of the proposed new or modified source. This notice shall be distributed at least 30 days prior to the date final action on the application is to be taken by the APCO. The APCO shall review and consider all comments received during the 30 days after the notice is distributed, and shall include written responses to the comments in the permit application file prior to taking final action on the application.

2-2-414 PSD Air Quality Analysis: An application for an authority to construct a facility subject to the requirements of Sections 2-2-304, 305, 306 or 308 shall contain the following:

414.1 A modeling analysis, as defined in Section 2-2-222, demonstrating to the satisfaction of the APCO the air quality impacts of the new or modified facility (including impacts of non-criteria pollutants if required under Section 2-2-306). The analysis shall include meteorological and topographic data necessary to estimate such impact. If the maximum air quality impacts of the new or modified facility do not exceed the significance levels for air quality impacts, as defined in Section 2-2-233, no further analysis under this Section will be required unless the facility is subject to the Class I area requirements of Section 2-2-308.

414.2 A demonstration by modeling to the satisfaction of the APCO that the allowable emission increases from the new or modified facility, in conjunction with all other applicable emissions, would not cause or contribute to a violation of an air quality standard or an exceedance of any applicable PSD increment. A new or modified facility will be considered to cause or contribute to a violation of an air quality standard when the increase in emissions would cause a significant air quality impact at any locality that does not or would not meet the applicable air quality standard.

414.3 For determining whether the emission increases from the new or modified facility would cause or contribute to an air quality standard violation or an exceedance of a PSD increment, an analysis of the existing air quality in the impact area of the new or modified facility that includes one year of continuous ambient air quality monitoring data. The continuous air quality monitoring data shall have been gathered over a period of at least one year preceding the receipt of a complete application. The APCO may approve a shorter period (but not less than four months) provided that the period of monitoring includes the time frame when maximum concentrations are

expected. The APCO may approve modeling in lieu of ambient air quality monitoring for pollutants for which no air quality standard exists.

414.4 For pollutants for which PSD increments have been established, a PSD increment consumption analysis that includes:

4.1 Establishment of the baseline area(s) affected by the new and modified facility, and the corresponding baseline date(s);

4.2 An analysis of the air quality impact of all increment-consuming emissions within the impact area of the new or modified facility, and those increment-consuming emissions outside the impact area that may have a significant air quality impact within the impact area; and,

4.3 An analysis of the air quality impact, and the nature and extent of any or all general commercial, residential, industrial, and other growth which has occurred since the baseline date in the impact area of the new or modified facility.

2-2-415 **Notice to EPA and Federal Land Manager:** On the date of a complete application subject to Section 2-2-308, the APCO shall provide a copy of the complete application to the EPA, the Federal Land Manager for the affected Class I Area, and to the federal official charged with direct responsibility for management of any lands within the Class I area. The APCO shall also send a copy of the preliminary decision and the APCO's analysis to the above agencies.

2-2-416 **Report, PSD Increment Consumption:** The District shall conduct an annual review of the increment status for each attainment pollutant, and the APCO, upon request of the Board of Directors, shall provide a report on the consumption of PSD increments which have occurred during the period of interest.

2-2-417 **Visibility, Soils, and Vegetation Analysis:** An application for a permit subject to the requirements of Section 2-2-414 shall contain an analysis of the impairment to visibility, soils and vegetation that would occur as a result of the new or modified source and the general commercial, residential, industrial and other growth associated with the source or modification. The applicant need not provide an analysis of the impact on vegetation if it has no significant commercial or recreational value.

2-2-418 **PSD Analysis Stack Heights:** For the purposes of modeling, stack heights beyond what is required by good engineering practices shall not be allowed. This requirement should not be perceived to be a limit on the actual constructed height of a stack. The method to calculate good engineering stack height is referenced in Section 2-2-602.

2-2-419 **Permit Conditions:** The APCO may require any permit condition necessary to insure compliance with this Rule to be included in an authority to construct or permit to operate. This may include conditions controlling the operation of the source, of its abatement equipment, or of sources used to provide mitigation (offsets). Conditions may have a future effective date and may be made conditional on the results of source tests, ground level monitors or public complaints.

419.1 All emission reduction credits shall be enforceable by permit conditions; such permit conditions shall constitute applicable requirements of the State Implementation Plan for purposes of Section 113 and 304 of the Clean Air Act and are enforceable in the same manner as other SIP requirements.

(Amended June 15, 1994)

2-2-420 **Semiconductor Fabrication Area, Annual BACT and Offset Certification:** Upon written request by an owner or operator of a Semiconductor Fabrication Area (Fab Area), the APCO shall certify which specific pieces of equipment, comprising a Fab Area, are being controlled to the current District BACT levels. After the initial BACT certification, the facility must reapply in writing at the time of annual permit renewal for recertification by the APCO. Thereafter, any piece of equipment within a Fab Area that is currently BACT certified may be replaced with a functionally equivalent

device, without first obtaining an authority to construct from the District provided that:

420.1 The APCO has issued a certification in writing specifying that the piece of equipment being replaced is being controlled to current BACT levels;

420.2 Offsets are supplied in quantities required by Section 2-2-302, to the satisfaction of the APCO, by the permittee at the time of annual permit renewal for all such equipment replacements;

420.3 The emission limits for the semiconductor fabrication area are reset to the highest levels demonstrated, to the satisfaction of the APCO, for any twelve (12) consecutive month period occurring during the last five years; and

420.4 The APCO is advised in writing of any equipment replacement within 30 days of the replacement and provided that no changes in the Fab Area permit conditions are required due to the replacement. (Amended June 15, 1994)

2-2-421 Offset Deferral, Annual Permit Renewal: Whenever offsets are required by Section 2-2-302 or 303, a person has the option to defer providing the offsets until the time of the annual permit renewal provided:

421.1 The facility demonstrates that they have valid Banking Certificates adequate to cover their offset obligation. Offsets deferred under the provisions of this Section shall be provided by the facility at least 30 days prior to the date of annual permit renewal, and

421.2 The facility does not have a cumulative increase greater than 15 tons per year for the pollutant or pollutants subject to the offset requirement(s).

(Adopted June 15, 1994)

2-2-500 MONITORING AND RECORDS

2-2-501 PSD Pre-Construction Ambient Air Monitoring: An applicant subject to the requirements of subsection 2-2-414.3 shall meet the following requirements:

501.1 Prior to commencing pre-construction ambient air monitoring, receive written approval from the APCO regarding the selection and operation of monitoring stations.

501.2 Operate the monitoring stations in accordance with the provisions of Appendix B to 40 CFR 58. The APCO may approve the use of District air monitoring data as part of the PSD air quality analysis required by Section 2-2-414.

2-2-502 PSD Post-Construction Monitoring: The owner or operator of a facility subject to the requirements of Section 2-2-414 shall, after construction of the facility or modification, conduct such ambient air quality monitoring as the APCO specifies in the authority to construct or the permit to operate. The monitoring shall determine the effect emissions from the facility or modification may have, or are having, on air quality in the area. All air monitoring shall be performed in accordance to the Manual of Procedures, Volume VI and 40 CFR Appendix B.

2-2-600 MANUAL OF PROCEDURES

2-2-601 Ambient Air Quality Monitoring: Any person subject to the ambient air quality monitoring requirements of this Rule shall use the methods prescribed in the Manual of Procedures, Volume VI.

2-2-602 Good Engineering Practice (GEP) Stack Height: The method for calculating GEP stack height is contained in the FEDERAL REGISTER: VOLUME 50, NUMBER 130; MONDAY, JULY 18, 1985.

2-2-603 **PSD Air Quality Evaluation Procedure:** As a guideline to preparing an air quality impact analysis the applicant is encouraged to review "Guidelines for Air Quality Maintenance Planning and Analysis," Volume 10 (Revised): Procedures for Evaluating Air Quality Impact of New Stationary Sources, EPA-450/4-77-001.

2-2-604 **Emission Increase Calculation Procedures, New or Modified Sources:** The APCO shall determine the annual emission increase, expressed as tons per year, from:

604.1 A new source based on the maximum emitting potential of the new source or the maximum permitted emission level of the new source, approved by the APCO, subject to federally enforceable limiting conditions.

604.2 A modified source by subtracting either the annual emission rate for which offsets have been provided or the actual annual emission for the highest twelve (12) consecutive month period occurring during the last five years immediately preceding the application date, in compliance with all District rules, regulations and permit conditions and which was representative of normal operation, from the new maximum permitted emission level of the modified source, approved by the APCO, subject to federally enforceable limiting conditions. (Amended June 15, 1994)

2-2-605 **Emission Calculation Procedures, Emission Reduction Credits:** The APCO shall determine the emission reduction credits which qualify as offsets from:

605.1 A contemporaneous shutdown of a source, as a condition of the authority to construct, by determining the annual emission rate for which offsets have been provided, adjusted to reflect any reductions required by any pending District retrofit regulation, or by determining the actual annual emission from the source, averaged over the highest twelve (12) consecutive month period occurring during the last five years immediately preceding the application date, in compliance with all District rules, regulations and permit conditions and which was representative of normal operation, adjusted to reflect any reductions required by District regulations or by any pending district law, rule or regulation.

605.2 A source to be controlled or, curtailed, by subtracting the new maximum permitted emission level of the source, approved by the APCO, subject to federally enforceable limiting conditions, from either the actual annual emission from the source, averaged over the highest twelve (12) consecutive month period occurring during the last five years immediately preceding the application date, in compliance with all District rules, regulations and permit conditions and which was representative of normal operation to reflect any reductions required by any pending District retrofit, adjusted regulation or from the annual emission rate, for which offsets have been provided, adjusted to reflect any reductions required by any pending district retrofit regulation. (Amended June 15, 1994)

2-2-606 **Emission Calculation Procedures, Offsets:** Except as provide by the offset deferral provision of Section 2-2-421, before the APCO may issue an authority to construct for a new or modified source, offsets shall be provided, as required by Sections 2-2-302, 303 or 313 by the applicant from credits in the District's Emissions Bank and/or from contemporaneous emission reduction credits which qualify in accordance with Sections 2-2-201 and 605, or by the District from the small facility banking account for the amounts calculated as follows:

606.1 For precursor organic compounds (POC) and nitrogen oxides (NO_x) for the total of all emission increases as determined in Section 2-2-604 plus any pre-existing cumulative increase from April 5, 1991, multiplied by the offset ratio required by Section 2-2-302.

606.2 If required by Section 2-2-303, for, PM_{10}, and sulfur dioxide for the total of all emission increases as determined in Section 2-2-604 multiplied by the appropriate offset ratio specified in Section 2-2-303.

Emission offsets provided in excess of those required, which meet the requirements of a bankable reduction per Regulation 2-4-301 or 302 and banking credit period defined in Regulation 2-4-203, may qualify to be banked. Banking fees shall be waived for this transaction. (Amended June 15, 1994)

2-2-607 **Emission Calculation Procedures, Emission Reduction Credits for Mobile Sources:** Emission reduction credits for mobile sources shall be determined by the Mobile Source Emission Reduction Credits procedures published February 1994 (or subsequent revisions) by the California Air Resources Board or other District approved procedures in the Manual of Procedures. (Adopted June 15, 1994)

2-2-608 **Alternate Emission Calculation Procedures, Replacement Sources:** As an alternative to the calculation procedures of subsection 2-2-605.1 an applicant may elect to have a replacement source conditioned by maximum production capacity, throughput, output, or other rating of the replaced source provided the following provisions are satisfied:

608.1 The replacement source is functionally equivalent to the replaced source prior to replacement and is located within the same facility; and

608.2 There is no increase in maximum: production capacity, throughput, output, or other rating of the replaced source; and

608.3 Each replacement source shall be equipped with Best Available Control Technology (BACT) as required by Section 2-2-301;

A conditioned emission level established in accordance with this section shall not be the basis of calculating an emission reduction credit or an emission baseline unless all applicable calculation procedures of Section 2-2-605 of this Rule and Regulation 2 Rule 4 are followed. (Adopted June 15, 1994)

REGULATION 2
PERMITS
RULE 1
GENERAL REQUIREMENTS

INDEX

REGULATION 2
PERMITS
RULE 1
GENERAL REQUIREMENTS
(Adopted January 1, 1980)

2-1-101 **Description:** The purpose of Regulation 2 is to provide an orderly procedure for the review of new sources of air pollution and of the modification and operation of existing sources through the issuance of authorities to construct and permits to operate. The applicability of Regulation 2, Rule 1 is illustrated by Figure 2-1-101, Permit/Exemption Flow Chart. (Amended July 17, 1991; June 7, 1995)

2-1-102 **Applicable Requirements:** The requirements of this Rule shall apply to rules 2, 3, and 6 of this regulation, unless superseded by specific requirements in rules 2, 3, and 6. (Amended November 3, 1993)

2-1-103 **Exemption, Source not Subject to any District Rule:** Any source that is not already exempt from the requirements of Section 2-1-301 and 302 by Sections 2-1-104 to 2-1-128, is exempt if the source meets all of the following criteria:

103.1 The source is not subject to any of the provisions of Regulation 6[(1)], Regulation 8[(2)] excluding Rules 1 through 4, Regulations 9 through 12; and

103.2 The source is not subject to any of the provisions of Sections 2-1-316 through 318; and

103.3 Actual emissions of precursor organic compounds (POC), non-precursor organic compounds (NPOC), nitrogen oxides (NOx), sulfur dioxide (SO2), PM10 and carbon monoxide (CO) from the source are each less than 10 pounds per day. A source also satisfies this criterion if actual emissions of each pollutant are greater than 10 lb/day, but total emissions are less than 150 pounds per year, per pollutant.

Note 1: Typically, any source may be subject to Regulation 6, Particulate Matter and Visible Emissions. For the purposes of this section, Regulation 6 applicability shall be limited to the following types of sources that emit PM10: combustion source; material handling/processing; sand, gravel or rock processing; cement, concrete and asphaltic concrete production; tub grinder; or similar PM10-emitting source, as deemed by the APCO.

Note 2: If an exemption in a Regulation 8 Rule indicates that the source is subject to Regulation 8, Rules 1 through 4, then the source must comply with all applicable provisions of Regulation 8, Rules 1 through 4, to qualify for this exemption. (Adopted June 7, 1995)

2-1-104 **Exemption, Temporary Replacement:** The APCO shall exempt a person from the requirements of Sections 2-1-301 and 2-1-302 of this Rule if the temporary replacement source or abatement device will be in operation at the facility for less than three months from the date of replacement, provided that all requirements of the following subsections are met:

104.1 The facility advises the APCO in writing no later than 3 days following the date of replacement.

104.2 The replacement source or abatement device is identical or functionally equivalent to the source being replaced; and

104.3 The source or abatement device being replaced is currently operating under a valid District Authority to Construct or Permit to Operate which will be valid during the replacement period or will be renewed during the replacement period; and

104.4 The replacement source or abatement device will comply with all applicable District rules and regulations, including any existing permit conditions on the replaced source or abatement device, except Best Available Control Technology requirements exempted by Regulation 2-2-110.

(Adopted June 7, 1995)

2-1-105 **Exemption, Registered Inter-District Portable Equipment:** The following portable equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment complies with all applicable requirements of the "CAPCOA Portable Equipment Registration Rule".

105.1 Confined abrasive blasting

105.2 Portland concrete batch plants

105.3 Spark ignition or diesel fired internal combustion engines used in conjunction with the following types of operations:

3.1 Well drilling service or workover rigs;

3.2 Power generation, excluding cogeneration;

3.3 Pumps;

3.4 Compressors;

3.5 Pile drivers;

3.6 Welding;

3.7 Cranes; and

3.8 Wood chippers

105.4 Sand and Gravel screening, rock crushing, pavement crushing and recycling operations;

105.5 Unconfined abrasive blasting. (Adopted June 7, 1995)

2-1-106 **Limited Exemption, Accelerated Permitting Program:** Unless subject to any of the provisions of Sections 2-1-316 through 318, any new or modified source is exempt from the Authority to Construct requirements of Section 2-1-301, provided that the owner or operator certifies that the source meets all of the criteria set forth in Sections 2-1-106.1 through 106.3. Such a source is still subject to the Permit to Operate requirements of Section 2-1-302, but will be evaluated under the Accelerated Permitting Program, as described in Section 2-1-302.2. Applicable fees for sources qualifying for the Accelerated Permitting Program are described in Section 2-1-303.

106.1 Uncontrolled emissions of POC, NPOC, NOx, SO2, PM10, and CO are each less than 1.5 tons per year; or the source is pre-certified per Section 2-1-415; and

106.2 Emissions of toxic compounds do not exceed the trigger levels identified in Table 2-1-316; and

106.3 The source is not subject to the public notice requirements of Section 2-1-412.

In addition to the above, the replacement of any abatement device is exempt from the Authority to Construct requirements of Section 2-1-301 and will be evaluated under the Accelerated Permitting Program in Section 2-1-302.2, provided that the owner or operator certifies for all pollutants that the abatement device is as efficient as, or more efficient than, the abatement device being replaced.

(Adopted June 7, 1995)

2-1-109 **Deleted June 7, 1995**

2-1-110 **Deleted June 7, 1995**

2-1-111 **Deleted June 7, 1995**

2-1-112 **Deleted June 7, 1995**

2-1-113 **Exemption, Sources and Operations:**

113.1 The following sources and operations are exempt from the requirements of Sections 2-1-301 and 302, in accordance with the **California Health and Safety Code**:

1.1 Single and multiple family dwellings used solely for residential purposes.

1.2 Any equipment used in agricultural operations, in the growing of crops or the raising of fowl or animals.

1.3 Any vehicle. Equipment temporarily or permanently attached to a vehicle is not considered to be a part of that vehicle unless the combination is a vehicle as defined in the Vehicle Code. Specialty vehicles may include temporarily or permanently attached

equipment including, but are not limited to, the following: oil well production service unit; special construction equipment; and special mobile equipment.

1.4 Tank vehicles with vapor recovery systems subject to state certification, in accordance with the Health and Safety Code.

113.2 The following sources and operations are exempt from the requirements of Sections 2-1-301 and 302:

2.1 Road construction, widening and rerouting.

2.2 Restaurants, cafeterias and other retail establishments for the purpose of preparing food for human consumption.

2.3 Structural changes which do not change the quality, nature or quantity of air contaminant emissions.

2.4 Any abatement device which is used solely to abate equipment that does not require an Authority to Construct or Permit to Operate.

2.5 Architectural and industrial maintenance coating operations that are exclusively subject to Regulation 8, Rules 3 or 48, because coatings are applied to stationary structures, their appurtenances, to mobile homes, to pavements, or to curbs. This does not apply to coatings applied by the manufacturer prior to installation, nor to the coating of components removed from such structures and equipment.

2.6 Portable abatement equipment exclusively used to comply with the tank degassing control requirements of Regulation 8, Rule 5.

2.7 Equipment that transports, holds or stores California Public Utilities Commission regulated natural gas, excluding drivers.

2.8 Internal combustion (IC) engines or gas turbines of less than 250 hp output rating.

2.9 Internal combustion engines that are laboratory engines used in research or teaching programs.

2.10 A portable internal combustion engine or standby internal combustion engine used on a temporary basis of no more than 30 days per calendar year at any one facility or used for the emergency pumping of water. Any engine which replaces an engine operating under this exemption at a facility, and is intended to perform the same function as the engine being replaced, will be counted toward the same 30-day time limitation. This section does not apply to soil vapor extraction engines.

2.11 Teaching laboratories used exclusively for classroom experimentation and/or demonstration.

2.12 Laboratories located in a building where the total laboratory floor space within the building is less than 25,000 square feet, or the total number of fume hoods within the building is less than 50, provided that Responsible Laboratory Management Practices, as defined in Section 2-1-224, are used. Buildings connected by passageways and/or corridors shall be considered as separate buildings, provided that structural integrity could be maintained in the absence of the passageways and/or corridors and the buildings have their own separate and independently operating HVAC and fire suppression systems. For the purposes of this subsection, teaching laboratories that are exempt per Section 2-1-113.2.11 are not included in the floor space or fume hood totals. In addition, laboratory units for which the owner or operator of the source can demonstrate that toxic air contaminant emissions would not occur, except under accidental or upset conditions, are not included in the floor space or fume hood totals.

2.13 Maintenance operations on natural gas pipelines and associated equipment, provided that emissions from such operations consist

solely of residual natural gas that is vented after the equipment is isolated or shut down.

2.14 Space heating units that are not subject to Regulation 9, Rule 7, where emissions result solely from the combustion of natural gas or liquefied petroleum gas (e.g. propane, butane, isobutane, propylene, butylenes, and their mixtures) of less than 20 million BTU per hour heat input. Incinerators operated in conjunction with such sources are not exempt.

(Adopted October 19, 1983; Amended July 17, 1991; June 7, 1995)

2-1-114 Exemption, Boilers, Heaters, Steam Generators, Duct Burners, and Similar Combustion Equipment: The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318, and provided that the source does not emit pollutants other than combustion products.

114.1 Any of the above equipment with less than 1 million BTU per hour rated heat input.

114.2 Any of the above equipment with less than 10 million BTU per hour rated heat input if fired exclusively with natural gas (including compressed natural gas), liquefied petroleum gas (e.g. propane, butane, isobutane, propylene, butylenes, and their mixtures), or any combination thereof.

(Adopted October 19, 1983; Amended July 17, 1991; June 7, 1995)

2-1-115 Exemption, Particulate Sources at Quarries, Mineral Processing and Biomass Facilities: The following potential PM10 sources are exempt from the requirements of sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318.

115.1 Sources located at quarrying; mineral or ore handling or processing; concrete production; asphaltic concrete production; marine bulk transfer stations; concrete or asphaltic concrete recycling; vehicle shredding; glass manufacturing; handling or processing of cement, coke, lime, flyash, fertilizer, or catalyst; or other similar facility which meets one of the following:

1.1 Mixer and other ancillary sources at concrete or aggregate product production facilities with a maximum rated production capacity less than 15 cubic yards (yd3) per hour;

1.2 Other source at a facility with a maximum throughput less than 5000 tons per year;

1.3 Operating, loading and unloading a crusher or grinder which processes exclusively material with a moisture content greater than or equal to 20 percent by weight;

1.4 Operating, loading and unloading the following sources which process exclusively material with a moisture content greater than or equal to 5 percent by weight:

1.4.1 Screen or other size classification;

1.4.2 Conveyor, screw, auger, stacker or bucket elevator;

1.4.3 Grizzly, or other material loading or unloading;

1.4.4 Storage silos;

1.4.5 Storage or weigh hopper/bin system.

1.5 Haul or access roads;

1.6 Drilling or blasting.

115.2 Sources located at biomass recycling, composting, landfill, POTW, or related facilities specializing in the operation of, but not limited to, the following:

2.1 Tub grinder powered by a motor with a maximum output rating less than 10 horsepower;

2.2 Hogger, shredder or similar source powered by a motor with a maximum output rating less than 25 horsepower;

2.3 Other biomass processing/handling sources at a facilities with a total throughput less than 500 tons per year. (Amended June 7, 1995)

2-1-116 Exemption, Furnaces, Ovens and Kilns: The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318, or Rule 11-15 Airborne Toxic Control Measure for Emissions of Toxic Metals from Non-Ferrous Metal Melting.

116.1 Porcelain enameling furnaces, porcelain enameling drying ovens, vitreous enameling furnaces or vitreous enameling drying ovens.

116.2 Crucible furnaces, pot furnaces, induction furnaces, cupolas, electric arc furnaces, reverbatories, or blast furnaces with a capacity of 1000 lbs or less each.

116.3 Crucible furnaces, pot furnaces, or induction furnaces for sweating or distilling that process 100 tons per year of all metals or less.

116.4 Drying or heat-treating ovens with less than 10 million BTU per hour capacity provided that a) the oven does not emit pollutants other than combustion products and b) the oven is fired exclusively with natural gas (including compressed natural gas), liquefied petroleum gas (e.g. propane, butane, isobutane, propylene, butylenes, and their mixtures), or any combination thereof.

116.5 Ovens used exclusively for the curing of plastics which are concurrently being vacuum held to a mold, or for the softening and annealing of plastics.

116.6 Ovens used exclusively for the curing of vinyl plastisols by the closed mold curing process.

116.7 Ovens used exclusively for curing potting materials or castings made with epoxy resins.

116.8 Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity or any combination thereof.

116.9 Parts cleaning, bake-off, and similar ovens that meet both of the following:

9.1 oven is equipped with a secondary combustion chamber or abated by a fume incinerator; and

9.2 internal oven volume is 1 cubic yard or less.

116.10 Electric ovens used exclusively for curing or heat-treating where no significant off-gassing or evaporation of any air contaminants occurs.

(Adopted October 19,1983; Amended July 17,1991; June 7, 1995)

2-1-117 Exemption, Food and Agricultural Equipment: The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318.

117.1 Smokehouses or barbecue units in which the maximum horizontal inside cross sectional area does not exceed 20 square feet.

117.2 Equipment at facilities other than restaurants, cafeterias or other retail operations, which is used to dry, cook, fry, bake, or grill less than 1000 tons per year of food products.

117.3 Any oven with a total production of yeast leavened bakery products of less than 10,000 pounds per operating day, averaged over any period of seven consecutive days, and which is heated either electrically or exclusively by natural gas firing with a maximum capacity of less than 10 million BTU per hour.

117.4 Equipment used exclusively to grind, blend, package, or store tea, cocoa, spices, or coffee.

117.5 Equipment used to dry, mill, grind, blend, or package less than 1000 tons per year of dry food products such as seeds, grains, corn, meal, flour, sugar, and starch.

117.6 Equipment used to convey, transfer, clean, or separate less than 1000 tons per year of dry food products or waste from food production operations.

117.7 Storage equipment or facilities containing dry food products; which are not vented to the outside atmosphere, or which handle less than 1000 tons per year.

117. 8 Coffee, cocoa and nut roasters with a roasting capacity of less than 15 pounds of beans or nuts per hour; and any stoners or coolers operated in conjunction with these roasters.

117.9 Containers, reservoirs, tanks, or loading equipment used exclusively for the storage or loading of beer, wine or other alcoholic beverages.

117.10 Fermentation tanks for beer or wine. Fermentation tanks used for the commercial production of yeast for sale are not exempt.

117.11 Brewing operations at facilities producing less than 3 million gallons per year of beer.

117.12 Fruit sulfuring operations at facilities producing less than 10 tons per year of sulfured fruits and vegetables.

(Adopted10/19/83; Amended April 16, 1986, July 17,1991; June 7, 1995)

2-1-118 Exemption, Surface Preparation and Cleaning Equipment: The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318.

118.1 Permanent abrasive blasting source, as defined by Regulation 12, Rule 4, that has a confined volume less than 100 cubic feet (ft3) and is abated by a particulate filter.

118.2 Blast cleaning equipment using a suspension of abrasive in water.

118.3 Portable abrasive blasting equipment used on a temporary basis within the District.

118.4 Equipment using an unheated solvent mixture for surface preparation, cleaning, wipe cleaning, fluxing or stripping by use of solutions containing less than ten percent VOC (wt).

118.5 Equipment using a heated solvent mixture for steam cleaning, surface preparation, fluxing, stripping, wipe cleaning, washing or drying products, provided that a) only solutions containing less than 2.5 percent VOC (wt) are used; and b) any combustion sources used in the process are exempt under Section 2-1-114.

118.6 Equipment or operations which use unheated solvent and which contain less than 1 gallon of solvent or have a liquid surface area of less than 1 ft^2. This exemption does not apply to solvent stations at semiconductor manufacturing operation fabrication areas or aerospace stripping operations.

118.7 Equipment and containers that are used for surface preparation, cleaning, or stripping by use of solvents or solutions and that meet all the following:

7.1 Volatile Organic Compounds used which have initial boiling points greater than 302^oF and the initial boiling point exceeds the maximum operating temperature by at least 180^oF.

7.2 The equipment or container has a capacity of less than 35.1 gallons of liquid; for remote reservoir cold cleaners, capacity is defined as the volume of the remote reservoir.

7.3 The equipment or container has a liquid surface area less than 7 ft^2; or for remote reservoir cold cleaners, the sink or working area has a horizontal surface area less than 7 ft^2.

7.4 If solvent flow is used, only a continuous fluid stream is used (not a fine, atomized, or shower type spray).

This exemption does not apply to solvent wipe cleaning operations or solvent cleaning stations at semiconductor manufacturing fabrication areas.

118.8 Batch solvent recycling equipment where all of the following apply:

8.1 Recovered solvent is used primarily on site (more than 50% by volume); and

8.2 Maximum heat input (HHV) is less than 1 million BTU per hour; and

8.3 Batch capacity is less than 150 gallons.

118.9 Wipe cleaning at a facility with a net solvent usage less than 20 gallons per year, or which emits to the atmosphere less than 150 lb/year of VOC from all wipe cleaning operations. At a facility with total wipe cleaning emissions greater than 150 lb/yr, wipe cleaning operations may be grouped per Section 2-1-401.4.

118.10 Any solvent cleaning or surface preparation source which employs only non-refillable hand held aerosol cans.

118.11 Spray gun cleaning performed in compliance with Regulation 8.

(Adopted 10/19/83; Amended 4/16/86; 8/2/89; 7/17/91; 6/7/95)

2-1-119 Exemption, Surface Coating and Printing Equipment: The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318.

119.1 Any powder coating operation, or radiation cured coating operation where ultraviolet or electron beam energy is used to initiate a reaction to form a polymer network.

119.2 Any coating, adhesive, dipping,. laminating, printing, screening, masking, electrodeposition, resist application, or similar source or operation at any facility which:

2.1 Consumes a total of less than 30 gallons of coating per year on a facility wide basis, or emits less than 150 pounds per year of uncontrolled VOC on a facility wide basis, resulting from the application of coatings; or

2.2 Uses exclusively materials that contain less than one percent VOC (wt).

At a facility with coating emissions greater than 150 lb/yr, coating operations may be grouped per Section 2-1-401.3.

119.3 Any coating source which employs only non-refillable hand held aerosol cans.

119.4 An oven associated with an exempt coating source, provided that the oven is electrically heated, or the oven is fired exclusively with natural gas, liquefied petroleum gas (e.g. propane, butane, isobutane, propylene, butylenes, and their mixtures) and the maximum firing rate is less than 10 million BTU per hour. (Adopted 10/19/83; Amended 4/16/86; 7/17/91; 6/7/95)

2-1-120 Exemption, Dry Cleaning Equipment: Any dry cleaning facility which uses less than 700 gallons of petroleum solvents or any other non-halogenated solvent in any single year is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318. Equipment which used perchloroethylene or any other halogenated solvent is not exempt.

(Adopted October 19, 1983; Amended July 17,1991; June 7, 1995)

2-1-121 Exemption, Material Working and Handling Equipment: The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318.

121.1 Equipment used for buffing, carving, cutting, drilling, grinding, machining, planing, routing, sanding, sawing, shredding, stamping or turning of wood, ceramic artwork, ceramic precision parts, leather, metals, plastics, rubber, fiberboard, masonry, carbon or graphite, provided that organic emissions from the use of coolant, lubricant, or cutting oil are less than 150 lb/day.

121.2 Equipment used for pressing or storing sawdust, wood chips or wood shavings.

121.3 Equipment used exclusively to mill or grind coatings and molding compounds in a paste form provided the solution contains less than one percent VOC (wt).

121.4 Tumblers used for the cleaning or deburring of metal products without abrasive blasting.

121.5 Batch mixers with a rated working capacity of 55 gallons or less.

121.6 Mixing equipment provided no material in powder form is added and mixture contains less than one percent VOC (wt).

121.7 Equipment used exclusively for the mixing and blending of materials at ambient temperature to make water based adhesives.

121.8 Equipment used exclusively for the mixing and packaging of lubricants or greases.

121.9 Presses used exclusively for extruding metals, minerals, plastics or wood.

121.10 Presses used for the curing of rubber products and plastic products.

121.11 Platen presses used for laminating.

121.12 Roll mills or calendars for rubber or plastics.

121.13 Equipment used exclusively for forging, pressing, rolling, stamping or drawing metals or for heating metals immediately prior to forging, pressing, rolling, stamping or drawing, provided that: (1) maximum fuel use rate is less than 10 million BTU/hr; (2) no lubricant with an initial boiling point less than 400°F is used; and (3) organic emissions are less than 150 lb/day.

121.14 Atmosphere generators used in connection with metal heat treating processes.

121.15 Equipment used exclusively for the sintering of glass or metals.

121.16 Equipment used exclusively for the melting or applying of wax containing less than one percent VOC (wt).

121.17 Equipment used exclusively for conveying and storing plastic pellets.

121.18 Solid waste transfer stations that receive or load out a total of all material less than 50 tons/day.

121.19 Inactive solid waste disposal sites which do not have an operating landfill gas collection system.

(Adopted October 19, 1983; Amended July 17, 1991; June 7, 1995)

2-1-122 Exemption, Casting and Molding Equipment: The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318.

122.1 Molds used for the casting of metals.

122.2 Foundry sand mold forming equipment to which no heat is applied, except processes utilizing organic binders yielding in excess of 0.25% free phenol by weight of sand.

122.3 Shell core and shell-mold manufacturing machines.

122.4 Equipment used for extrusion, compression molding and injection molding of plastics.

122.5 Die casting machines.

(Adopted October 19, 1983; Amended July 17,1991; June 7, 1995)

2-1-123 Exemption, Liquid Storage and Loading Equipment: The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318.

123.1 Storage tanks and storage vessels having a capacity of less than 260 gallons.

123.2 Tanks, vessels and pumping equipment used exclusively for the storage or dispensing of any aqueous solution which contains less than 1 percent (wt) organic compounds. Tanks and vessels storing the following materials are not exempt.

2.1 Sulfuric acid with an acid strength of more than 99.0% by weight.

2.2 Phosphoric acid with an acid strength of more than 99.0% by weight.

2.3 Nitric acid with an acid strength of more than 70.0% by weight.

2.4 Hydrochloric acid with an acid strength of more than 30.0% by weight.

2.5 Hydrofluoric acid with an acid strength of more than 30.0% by weight.

2.6 More than one liquid phase, where the top phase contains more than one percent VOC (wt).

123.3 Containers, reservoirs, tanks or loading equipment used exclusively for:

3.1 Storage or loading of liquefied gases.

3.2 Storage or loading of organic liquids or mixtures containing organic liquids; where the initial boiling point of the organics is greater than 302°F and exceeds the actual storage temperature by at least 180°F. This exemption does not apply to the storage or loading of asphalt with a sulfur content equal to or greater than 0.5%.

3.3 The storage or loading of petroleum oils with an ASTM D-93 (PMCC) flash point of 130°F or higher, when stored or loaded at a temperature at least 36°F below the flash point.

3.4 The storage or loading of lubricating oils.

3.5 The storage of fuel oils with a gravity of 40 API or lower and having a capacity of 10,000 gallons or less.

3.6 The storage or loading of liquid soaps, liquid detergents, tallow, or vegetable oils, waxes or wax emulsions.

3.7 The storage of asphalt with a sulfur content of less than 0.5%. This does not include the storage of asphalt cutback with hydrocarbons having an initial boiling point of less than 302°F.

3.8 The storage of wine, beer or other alcoholic beverages.

3.9 The storage of organic salts or solids in an aqueous solution or suspension, provided that no liquid hydrocarbon layer forms on top of the aqueous phase.

3.10 The storage or loading of fuel oils with a gravity of 25 API or lower.

123.4 Tank seal replacement. For any tank subject to Regulation 8, Rule 5, any new seal must comply with the applicable provisions of Regulation 8, Rule 5, and that the District must receive written notification of the tank source number and seal type at least three days prior to the installation.

(Adopted 10/19/83; Amended 7/11/84;; 7/17/91; 6/7/95)

2-1-124 Exemption, Semiconductor Manufacturing: The following are exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318.

124.1 Semiconductor fabrication equipment:

1.1 Ion implantation.

1.2 Vacuum deposition.

1.3 Sputtering.

1. 4 Plasma etching or ashing.

1. 5 Solvent or acid cleaning wet chemical stations with an aggregate capacity of 100 gallons or less per fabrication area.

124.2 Semiconductor fabrication operations:

2.1 Wafer coating, solvent application, photomask fabrication, or equipment cleaning operations which use solutions containing less than 1% (weight) VOC.

2.2 Any gaseous process operation with air toxic contaminant emissions less than the quantities specified in Section 2-1-316.

2.3 Buffing, polishing, carving, cutting, drilling, lapping, machining, routing, sanding, sawing, surface grinding, or turning of semiconductor wafers.

(Adopted 10/19/83; Amended 1/9/85; 4/16/86; 7/17/91; 6/7/95)

2-1-125 Exemption, Printed Circuit Board Manufacturing Equipment: The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318.

125.1 Equipment used exclusively for:

1.1 Plating of printed circuit boards.

1.2 Buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding or turning of printed circuit boards.

1.3 Soldering. This section does not exempt fluxing and finger cleaning (see Section 2-1-118.4).

(Adopted October 19, 1983; Amended July 17, 1991; June 7, 1995)

2-1-126 Exemption, Testing Equipment: The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318.

126.1 Equipment used for hydraulic or hydrostatic testing.

126.2 Bench scale laboratory equipment or processes used exclusively for chemical or physical analyses or experimentation, quality assurance and quality control testing, research and development, or similar bench scale equipment, excluding pilot plants.

126.3 Equipment used for inspection of metal products.

(Adopted October 19, 1983; Amended July 17, 1991; June 7, 1995)

2-1-127 Exemption, Chemical Processing Equipment: The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318.

127.1 Equipment used exclusively for the dyeing or stripping (bleaching) of textiles provided that only solutions containing less than one percent VOC (wt) are used.

127.2 Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy.

127.3 Containers, reservoirs, or tanks used exclusively for electrolytic plating with, or electrolytic polishing of, or electrolytic stripping of the following metals: brass, bronze, cadmium, copper, iron, nickel, tin, zinc and precious metals.

127.4 Containers, reservoirs, or tanks used exclusively for etching (not chemical milling), except where ammonia or ammonium-based etchants are used.

(Adopted October 19, 1983; Amended July 17, 1991; June 7, 1995)

2-1-128 Exemption, Miscellaneous Equipment: The following equipment is exempt from the requirements of Sections 2-1-301 and 302, provided that the equipment is not subject to any of the requirements of Section 2-1-316 through 318.

128.1 Comfort air conditioning or comfort ventilating systems which are not designed to remove air contaminants generated by or released from specific units of equipment.

128.2 Refrigeration units except those used as, or in conjunction with, air pollution control equipment.

128.3 Vacuum producing devices in laboratory operations which are used exclusively in connection with other equipment which is exempted by this Rule, and vacuum producing devices which do not remove or convey air contaminants from another source.

128.4 Water cooling towers and water cooling ponds not used for evaporative cooling of process water, or not used for evaporative cooling of water from barometric jets or from barometric condensers.

128.5 Natural draft hoods, natural draft stacks or natural draft ventilators.

128.6 Vacuum cleaning system used exclusively for industrial commercial or residential housekeeping purposes.

128.7 Equipment used to liquefy or separate oxygen, nitrogen or the rare gases from the air.

128.8 Equipment used exclusively to compress or hold dry natural gas, excluding drivers.

128.9 Equipment used exclusively for bonding lining to brake shoes.

128.10 Equipment used exclusively for the manufacture of water emulsions of waxes, greases or oils.

128.11 Brazing, soldering or welding equipment.

128.12 Pharmaceutical manufacturing equipment with annual VOC emissions less than 150 pounds per source. Material working and handling equipment such as mills, grinders, blenders, granulators, tablet presses, capsule fillers,

packagers, and conveyors are only exempt if the source also processes less than 100 tons per year of pharmaceutical products.

128. 13 Equipment used exclusively to blend or package cosmetics.

128. 14 Any wastewater (oil-water) separator, as defined in Regulation 8, Rule 8, which processes less than 200 gallons per day of waste water containing organic liquids.

128. 15 Exploratory drilling activities for methane recovery at waste disposal sites, for natural gas or for oil. Production wells for the above operations are not exempt.

128.16 Aeration of soil, provided that duration of aeration does not exceed three months.

128.17 Ozone generators which produce less than 1 pound per day of ozone.

128.18 Any source or operation which exclusively uses consumer products regulated by the California Air Resources Board (California Code of Regulations Title 17, Article 2, Sections 94507-94517).

128.19 Any source or operation deemed by the APCO to be equivalent to a source or operation which is expressly exempted by Sections 2-1-113 through 128.

128.20 Wastewater pumping stations where no treatment is performed, excluding any drivers.

128.21 Modification or addition of fugitive components (valves, flanges, pumps, compressors, relief valves, process drains) at existing permitted process units at petroleum refineries, chemical plants, bulk terminals or bulk plants, provided that the cumulative emissions from all additional components installed at a given process unit during any consecutive twelve month period do not exceed the Best Available Control Technology trigger level in Reg. 2-2-301, and that the components meet applicable requirements of Regulation 8 rules.

128.22 Fuel cells which use phosphoric acid, molten carbonate, proton exchange membrane, solid oxide or equivalent technologies. (Adopted June 7, 1995)

(Adopted 10/19/83; Amended 7/16/86; 7/17/91; 6/7/95)

2-1-129 Major Facility Review: Notwithstanding the exemptions listed in this section, every source exempted by this Rule shall be included in any application for a major facility review permit required by Regulation 2, Rule 6.

(Adopted November 3, 1993; Amended February 1, 1995)

2-1-200 DEFINITIONS

2-1-201 Emission Reduction Credits: An emission reduction, calculated in accordance with Regulation 2-2-605, which exceeds the emission reductions required by measures in the Air Quality Management Plan or the Clean Air Plan approved by the BAAQMD or required by federal, state, or District laws, rules, and regulations. To qualify as an emission reduction credit the emission reduction must be in excess of the reductions achieved by, the source using Reasonably Available Control Technology (ACT), and must also be real, permanent, quantifiable, and enforceable.

(Amended June 15, 1994)

201.1 Unless calculated in accordance with the procedures of Regulation 2-2-605, that portion of an NSR emission cap, which was part of an APCO approved alternative baseline, shall not qualify as an emission reduction credit.

201.2 All emission reduction credits shall be enforceable by permit conditions in the authority to construct and permit to operate, except that in the case of source closures where no permit is required for the source being shut down, the emission reduction credit shall be enforceable through appropriate contractual provisions in a legally binding and irrevocable written agreement which provisions will be made expressly for the benefit of the District. The permanence of a closure shall be identified in a letter from the source and/or in a Banking Certificate.

(Amended July 17, 1991; June 15, 1994)

2-1-202 **Complete Application:** An application for an Authority to Construct a new or modified source which contains the following:

202.1 Sufficient information for the APCO to determine the emissions from such new or modified source and to quantify emissions from the proposed source(s) of offsets.

202.2 Any information requested by the APCO in order to determine the air quality impact of such new or modified source or facility.

202.3 Fees for New and Modified Sources, as described in Regulation 3-302.

202.4 The information required by Regulation 2-2-414 and 417 provided the application is subject to the PSD requirements of Regulations 2-2-304, 305 or 308.

202.5 CEQA-related information which satisfies the requirements of Section 2-1-426.

202.6 A certification, stating whether the source triggers the requirements of Section 2-1-412.

202.7 A specific designation of all information, contained in the application, which is asserted to be a trade secret pursuant to Section 6254.7 of the Government Code and not a public record. Such designated information shall be provided in such a manner whereby it may be easily separated from information which is not asserted to be a trade secret. The applicant shall include, for each separate portion of the application which is asserted to be a trade secret, a statement signed by a responsible representative of the applicant identifying that portion of Government Code Section 6254.7 (d) upon which the assertion is based and a brief statement setting forth the basis for this assertion. (Amended July 17, 1991; November 20, 1991)

2-1-203 **Fugitive Emissions:** Fugitive emissions are all emissions from unintended openings in process equipment, emissions occurring from miscellaneous activities relating to the operation of a facility, and those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening.

(Adopted October 19, 1983)

2-1-204 **Major Facility:** Any facility which, the APCO determines to emit, on a pollutant specific basis, or determines will emit as a result of the issuance of an authority to construct, 100 tons per year or more of the specific pollutant subject to regulation under the federal Clean Air Act.

204.1 Major Facility, MFR (Regulated Air Pollutants): A facility that has the potential to emit 100 tons per year or more of any regulated air pollutant. For fugitive emissions of said pollutants, only those from facility categories listed in 40 CFR 70.2 "Definitions - *Major source* (2)" shall be included in determining whether the facility is a major facility. Once any facility is determined to be a major facility, all fugitive emissions from the facility

204.2 Major Facility, MFR (Hazardous Air Pollutants): A facility that has the potential to emit 10 tons per year or more of a single hazardous air pollutant or 25 tons per year or more of a combination of hazardous air pollutants, or such lesser quantity as the EPA Administrator may establish by rule. All fugitive emissions of hazardous air pollutants are included in determining a facility's potential to emit. For radionuclides, the definition of a major facility shall be specified by the EPA Administrator by rule.

(Amended July 17, 1991; November 3, 1993)

2-1-205 **National Ambient Air Quality Standards (NAAQS):** Levels of air pollution that have been established by the Environmental Protection Agency. All references to NAAQS shall be interpreted to include state ambient air quality standards.

(Amended October 7, 1981; April 6,1988)

2-1-206 **Organic Compound:** Any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate and methane.

2-1-207 **Organic Compound, Non-Precursor (NPOC):** The following are considered organic compound non-precursor .
methylene chloride, chloropentafluoroethane (CFC-115), 1,1,1-trichloroethane, 1,1,1-trifluoro 2,2-dichloroethane (HFC-123), 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124), trichlorofluoromethane(CFC-11), 1,1,2-trichloro 1,2,2-trifluoroethane(CFC-113), pentafluoroethane (HFC-125), 1,1,2,2-tetrafluororoethane (HFC-134), l,1,1,2-tetrafluorethane (HFC-134a), dichlorodifluoromethane(CFC-12), 1,1-dichloro 1-fluoroethane (HFC-141b), 1-chloro 1,1-difluoroethane(HCFC-142b), 1,1,1-trifluoroethane (HFC-143a), 1,2-dichloro 1,1,2,2-tetrafluorethane (CFC-114), 1,1-difluoroethane (CFC-152a), chlorodifluoromethane (HCFC-22), trifluoromethane (HFC-23), and perfluorocarbons which fall into these classes:

(1) Cyclic, branched, or linear, completely fluorinated alkanes,
(2) Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations,
(3) Cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations, and
(4) Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

In addition, any compound designated as having a negligible contribution to photochemical reactivity by the U.S. Environmental Protection Agency as published in the Federal Register shall be considered a Non-Precursor Organic Compound.
(Amended July 17, 1991; June 15, 1994)

2-1-208 **Organic Compound, Precursor:** Any organic compound as defined in Regulation 1-233 excepting the non-precursor organic compounds, defined in Section 2-1-207.
(Adopted March 17, 1982; Amended July 17, 1991)

2-1-209 **Reasonably Available Control Technology (RACT):** For sources which are to continue operating, RACT is the lowest emission limit that can be achieved by the specific source by the application of control technology taking into account technological feasibility and cost-effectiveness, and the specific design features or extent of necessary modifications to the source. For sources which are or will be shut-down, RACT is the lowest emission limit that can be achieved by the application of control technology to similar, but not necessarily identical categories of sources, taking into account technological feasibility and cost-effectiveness of the application of the control technology to the category of sources only and not to the shut-down source. (Adopted March 17, 1982, Amended October 19, 1983)

2-1-210 **Start-Up Period:** The period of time between initial operation and the issuance or denial of a permit to operate of a source or facility. (Adopted October 19, 1983)

2-1-211 **CEQA:** The California Environmental Quality Act, Public Resources Code, Section 21000, et seq. (Adopted July 17, 1991)

2-1-212 **EIR:** Environmental Impact Report, as defined in Section 21061 of the Public Resources Code. (Adopted July 17, 1991)

2-1-213 **Facility:** Any property, building, structure or installation (or any aggregation of facilities) located on one or more contiguous or adjacent properties and under common ownership or control of the same person that emits or may emit any air pollutant and is considered a single major industrial grouping (identified by the first two-digits of the applicable code in *The Standard Industrial Classification Manual*). In addition, facilities which include cargo loading or unloading from cargo carriers other than motor vehicles shall include the cargo carriers as part of the source which receives or loads the cargo. Accordingly, all emissions from such carriers while operating in the District, or within California Coastal Waters adjacent to the District, shall be included as part of the source emissions. (Adopted November 3, 1993)

2-1-214 **Federally Enforceable:** All limitations and conditions which are enforceable by the Administrator of the U. S. EPA, including requirements developed pursuant to 40 CFR Parts 60 (NSPS), 61 (NESHAPS), 63 (HAP), 70 (State Operating Permit Programs) and 72 (Permits Regulation, Acid Rain), requirements contained in the State Implementation Plan (SIP) that are applicable to the District, any District permit requirements established pursuant to 40 CFR 52.21 (PSD) or District

regulations approved pursuant to 40 CFR Part 51, Subpart I (NSR), and any operating permits issued under an EPA-approved program that is a part of the SIP and expressly requires adherence to any permit issued under such program.

(Adopted November 3, 1993)

2-1-215 **Hazardous Air Pollutant:** Any pollutant that is listed pursuant to Section 112(b) of the federal Clean Air Act. (Adopted November 3, 1993)

2-1-216 **Major Facility Review (MFR):** Plantwide review of sources, emissions and regulatory requirements at facilities including, but not limited to, major facilities, phase II acid rain facilities, subject solid waste incinerator facilities, and designated facilities, which are potentially subject to the permitting requirements of Regulation 2, Rule 6, and Title V of the federal Clean Air Act. (Adopted November 3, 1993)

2-1-217 **Potential to Emit:** The maximum capacity of a facility to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as a part of its design only if the limitation, or the effect it would have on emissions, is federally enforceable.

(Adopted November 3, 1993)

2-1-218 **Regulated Air Pollutant:** The following air pollutants (as defined in Regulation 1) are regulated:

218.1 Nitrogen oxides and volatile organic compounds;

218.2 Any pollutant for which a national ambient air quality standard has been promulgated;

218.3 Any Class I or Class II ozone depleting substance subject to a standard promulgated under Title VI of the federal Clean Air Act;

218.4 Any pollutant that is subject to any standard promulgated under Section 111 of the federal Clean Air Act; and

218.5 Any pollutant that is subject to any standard promulgated under Section 112 of the federal Clean Air Act. (Adopted November 3, 1993)

2-1-219 **Synthetic Minor Operating Facility:** A facility which by imposition of facilitywide federally enforceable permit conditions has its potential to emit limited to below the threshold levels for a major facility as defined by Sections 204.1 and 204.2 of this rule and in Section 212 of Regulation 2, Rule 6, and is not otherwise required to apply for a major facility review permit under Regulation 2, Rule 6.

(Adopted November 3, 1993)

2-1-220 **Portable Equipment:** This definition is provided exclusively for determining applicability of Section 2-1-105, Registered Inter-District Portable Equipment, and Section 2-1-413, Portable Equipment Operated within the District. Any emission unit that, by itself or, in or on a piece of equipment, is portable, meaning designed to be and capable of being carried or moved from one location to another. Indications of portability include, but are not limited to, wheels, skids, carrying handles, dolly trailer, platform or mounting. A piece of equipment is portable, for purposes of obtaining a portable permit under Section 2-1-413, if all of the following are met:

220.1 The equipment operates or is intended to operate in two or more locations during the course of a year. The equipment will not remain at any single location for a period in excess of 6 consecutive months, following the date of initial operation. Any emission unit, such as back up or standby unit, which replaces an emission unit at that location and is intended to perform the same function as the unit being replaced, will be counted toward the time limitation.

220.2 The source (emission unit) remains or will remain at a location for no more than 6 months, following the date of initial operation, where such a period does not represent the full length of normal annual source operations, such as operations which are seasonal.

220.3 The equipment is not removed from, or stored at, one location for a period and then returned to the same location in an attempt to circumvent the portable equipment residence time requirement.

220.4 The equipment is not operated within 1000 feet of any K-12 school, unless the applicable requirements of California Health and Safety Code Section 42301.6 have been met.

220.5 The operation shall comply with the Toxic Risk Management Policy.

220.6 No air contaminant shall be released into the atmosphere in sufficient quantities as to cause a public nuisance per Regulation 1-301.

220.7 The operation of the portable equipment in the Air District shall emit no more than 10 tons per year of each pollutant, including POC, CO, NOx, PM10, NPOC or SO_2. For PM10, fugitive particulate emissions from haul road traffic shall not be counted toward the annual limit.

220.8 The equipment under CEQA must be considered ministerial or is covered by one of the District MOP chapters.

220.9 The equipment will not cause a Synthetic Minor Facility to exceed a federally enforceable emission limit.

220.10 If this equipment remains at any fixed location for more than 6 months, the portable permit will automatically revert to a conventional permanent location permit and will lose its portability. To obtain another portable permit for the equipment, the owner must re-permit the equipment for the next location of intended operations. Upon written request, the APCO may exclude reasonable storage periods before the date of initial operation and/or following the date of final operation from the 6 month time limitation.

(Adopted June 7, 1995)

2-1-221 **Source:** Any article, machine, equipment, operation, contrivance or related groupings of such which may produce and/or emit air pollutants.

(Adopted June 7, 1995)

2-1-222 **Toxic Air Contaminant:** An air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. Toxic air contaminants consist of those substances identified by the Air Resources Board under Section 39662 of the State Health and Safety Code, and those substances listed as hazardous air pollutants under subsection (b) of Section 112 of the federal Clean Air Act. (Adopted June 7, 1995)

2-1-223 **Year:** Unless otherwise specified by an operating rule of the District or by a permit condition, a year shall be defined by an applicant or permit holder as one of the following:

223.1 Any consecutive 12 month period;

223.2 Any consecutive 4 quarter period, where a quarter is 3 consecutive months;

223.3 Any consecutive 52 week period;

223.4 Any consecutive 365 day period;

223.5 Any company fiscal year, provided the fiscal year is 12 consecutive months;

223.6 Calendar year;

223.7 Any other mutually acceptable period.

In the absence of a rule requirement, permit condition or other information to determine which yearly period applies, the District shall use Section 223.1.

(Adopted June 7, 1995)

2-1-224 **Responsible Laboratory Management Practices:** For the purposes of meeting the laboratory exemption of Section 2-1-113.2.12, Responsible Laboratory Management Practices include all of the following measures for minimizing the emissions of toxic air contaminants:

224.1 Open container procedures involving materials that contain volatile toxic air contaminants (TACs) shall be avoided where feasible.

224.2 Open container storage of volatile hazardous chemical wastes shall be avoided.

224.3 Training for laboratory employees handling hazardous materials shall include information about minimizing the emissions of volatile TACs. These employees shall be directed to avoid open container procedures

involving volatile TACs where feasible, and to avoid open container storage of hazardous chemical waste.

224.4 Fume hoods shall be posted with notices reminding employees to avoid open container procedures using volatile TACs where feasible. Laboratories shall be inspected periodically, but not less than annually, to confirm that these notices are present.

224.5 Laboratory fume hoods shall be monitored periodically to assure proper face velocity.

224.6 Evaporation of any hazardous chemical waste containing TACs as a means of disposal shall be expressly forbidden. (Adopted June 7, 1995)

2-1-225 **Risk Screening Analysis:** An assessment of the measure of health risk for individuals in the affected population that may be exposed to emissions of toxic air contaminants from a given source. For the purposes of this Rule, a risk screening analysis may be a simplified analysis or, where available, a more refined health risk assessment utilizing appropriate site-specific information. (Adopted June 7, 1995)

2-1-300 **Standards**

2-1-301 **Authority to Construct:** Any person who, after July, 1972, puts in place, builds, erects, installs, modifies, modernizes, alters or replaces any article, machine, equipment or other contrivance, the use of which may cause, reduce or control the emission of air contaminants, shall first secure written authorization from the APCO in the form of an authority to construct. Routine repairs, maintenance, or cyclic maintenance that includes replacement of components with identical or equivalent components is not considered to be an alteration, modification or replacement for the purpose of this Section unless the APCO determines the changes to be non-routine and to constitute a Bay Area reconstruction of the source. The use or operation of the source shall initiate the start-up period in accordance with Section 2-1-411. (Amended March 17, 1982; October 19, 1983; July 17, 1991)

2-1-302 **Permit to Operate:** Before any person, as described in Section 2-1-401, uses or operates any article, machine, equipment or other contrivance, the use of which may cause, reduce or control the emission of air contaminants, such person shall first secure written authorization from the APCO in the form of a permit to operate.

302.1 Permit to Operate, MFR: Any facility subject to the requirements of Regulation 2-6, Major Facility Review, shall comply with the permitting requirements included herein in addition to securing a permit to operate under this rule. (Amended November 3, 1993)

302.2 Permit to Operate, Accelerated Permitting Program: Installation and operation of a new or modified source or abatement device, which qualifies for the Accelerated Permitting Program (APP) under Section 2-1-106, may commence immediately following the submittal of a complete permit application. A complete permit application under the APP includes: a completed permit application form and source data form(s); certification that applicable qualifying criteria of Section 2-1-106 are met; and payment of applicable fees per Section 2-1-303. The Permit to Operate will be issued within 49 days of receipt of a complete application, in accordance with Section 2-1-408, provided that the applicable offset provisions of Regulation 2, Rule 2, Sections 302 and 303 are satisfied. Permit conditions shall be limited to record keeping sufficient to demonstrate that emissions do not exceed qualifying levels for the APP. For a pre-certified source, permit conditions shall consist of the standard conditions developed during certification, in accordance with Section 2-1-415. A new or modified source, which would require a modification of the existing federally enforceable emission limits or federally enforceable permit conditions requiring monitoring, record keeping and/or reporting sufficient to determine compliance with those emission limits at a Synthetic Minor facility, does not qualify for the Accelerated Permitting Program. (Adopted; June 7, 1995)

2-1-303 **Fees:** Persons subject to this Regulation shall pay the fees required, as set forth in Regulation 3.

2-1-304 **Denial, Failure to Meet Emission Limitations:** The APCO shall deny an authority to construct or a permit to operate if the APCO finds that the subject of the application would not or does not comply with the emission limitations of the District, or with applicable permit conditions, federal or California laws or regulations. Such denial shall not be based solely on type of construction or design of equipment. (Amended March 17, 1982)

2-1-305 **Denial, Equipment Not in Conformance with Authority to Construct:** The APCO shall deny a permit to operate if it is found that the subject of the application was not built substantially in conformance with the authority to construct.

2-1-306 **Mandated Reductions Not Applicable:** Emission reductions resulting from requirements of federal, state or District laws, rules or regulations shall not be banked or allowed as emission offsets or emission reduction credits unless a complete application for such banking or emission reduction credits was filed with the District at least 90 days prior to the adoption date of such laws, rules or regulations. Only emission reduction credits exceeding the emission reductions required by measures described in the Air Quality Management Plan or required by permits or orders; and reductions achieved by measures not specified in the Air Quality Management Plan shall be banked or allowed as emission offsets or emission reduction credits. (Amended October 7, 1981; July 17, 1991; June 15, 1994)

2-1-307 **Failure to Meet Permit Conditions:** A person shall not operate any article, machine, equipment or other contrivance, for which an authority to construct or permit to operate has been issued, in violation of any permit condition imposed pursuant to Section 2-1-403. (Adopted March 17; 1982, Amended July 17, 1991)

2-1-308 **Fugitive Emissions:** Fugitive emissions shall be included as emissions from a facility. Fugitive emissions shall be subject to all requirements of District Rules and Regulations, including BACT, RACT, offsets, PSD requirements, and Class I Air Quality Related Values and increment protection, to the same extent as emissions that are not fugitive in nature. (Adopted October 19, 1983; Amended July 17, 1991)

2-1-309 **Canceled Application:** The APCO may cancel an application for an authority to construct and a permit to operate if, within 90 days after the application was deemed incomplete, the applicant fails to furnish the requested information or pay all appropriate fees. The 90 day period may be extended for an additional 90 days upon receipt of a written request from the applicant and written approval thereof by the APCO. The APCO shall notify the applicant in writing of a cancellation, and the reasons therefor. A cancellation shall become effective 10 days after the applicant has been notified. The cancellation shall be without prejudice to any future applications. (Adopted April 6, 1988)

2-1-310 **Applicability of CEQA:** Except for permit applications which will be reviewed as ministerial projects under Section 2-1-311 or which are exempt from CEQA pursuant to Section 2-1-312, all proposed new and modified sources for which an authority to construct must be obtained from the District shall be reviewed in accordance with the requirements of CEQA.

310.1 For those District permit applications which must be reviewed in accordance with the requirements of CEQA, the District will not normally be a Lead Agency under CEQA. Rather, pursuant to CEQA, the Lead Agency will normally be an agency with general governmental powers, such as a city or county, rather than a special purpose agency such as the District.

310.2 The issuance of an authority to construct and of a permit to operate for the same new or modified source or stationary source are considered to be parts of the same project for the purposes of CEQA.(Adopted July 17, 1991)

310.3 The APCO shall not authorize, on an interim basis or otherwise, the installation or operation of any proposed new or modified source, the permitting of which is subject to the requirements of CEQA, until all of the requirements of CEQA have been satisfied. (Adopted October 21, 1992)

2-1-311 **Ministerial Projects:** An application for a proposed new or modified source or stationary source will be classified as ministerial and will accordingly be exempt from the CEQA requirement of Section 2-1-310 if the District's engineering evaluation and basis for approval or denial of the permit application for the project is limited to the criteria set forth in Section 2-1-428 of this rule and to the specific procedures, fixed standards and objective measurements set forth in Volume II of the District's Manual of Procedures. The method for determining whether a given permit application will be classified as ministerial is set forth in Section 2-1-427. (Adopted July 17, 1991)

2-1-312 **Other Categories of Exempt Projects:** In addition to ministerial projects, the following categories of projects subject to permit review by the District will be exempt from the CEQA review, either because the category is exempted by the express terms of CEQA (subsections 2-1-312.1 through 312.9) or because the project has no potential for causing a significant adverse environmental impact (subsections 2-1-312.10 and 312.11). Any permit applicant wishing to qualify under any of the specific exemptions set forth in this Section 2-1-312 must include in its permit application CEQA-related information in accordance with subsection 2-1-426.1. In addition, the CEQA-related information submitted by any permit applicant wishing to qualify under subsection 2-1-312.11 must demonstrate to the satisfaction of the APCO that the proposed project has no potential for resulting in a significant environmental effect in connection with any of the environmental media or resources listed in Section II of Appendix I of the State CEQA Guidelines.

312.1 Applications to modify permit conditions for existing or permitted sources or facilities which do not involve any increases in emissions or physical modifications.

312.2 Permit applications to install air pollution control or abatement equipment.

312.3 Permit applications for projects undertaken for the sole purpose of bringing an existing facility into compliance with newly adopted regulatory requirements of the District or of any other local, state or federal agency.

312.4 Permit applications submitted by existing sources or facilities pursuant to a loss of a previously valid exemption from the District's permitting requirements.

312.5 Permit applications submitted pursuant to the requirements of an order for abatement issued by the District's Hearing Board or of a judicial enforcement order.

312.6 Permit applications relating exclusively to the repair, maintenance or minor alteration of existing facilities, equipment or sources involving negligible or no expansion of use beyond that previously existing.

312.7 Permit applications for the replacement or reconstruction of existing sources or facilities where the new source or facility will be located on the same site as the source or facility replaced and will have substantially the same purpose and capacity as the source or facility replaced.

312.8 Permit applications for cogeneration facilities which meet the criteria of Section 15329 of the State CEQA Guidelines.

312.9 Any other project which is exempt from CEQA review pursuant to the State CEQA Guidelines.

312.10 Applications to deposit emission reductions in the emissions bank pursuant to Regulation 2, Rule 4.

312.11 Permit applications for a proposed new or modified source or sources or for process changes which will satisfy the "No Net Emission Increase" provisions of District Regulation 2, Rule 2, and for which there is no possibility that the project may have any significant environmental effect in connection with any environmental media or resources other than air quality. Examples of such projects include, but are not necessarily limited to, the following:

11.1 Projects at an existing stationary source for which there will be no net increase in the emissions of air contaminants from the stationary

source and for which there will be no other significant environmental effect;

11.2 A proposed new source or stationary source for which full offsets are provided in accordance with Regulation 2, Rule 2, and for which there will be no other significant environmental effect;

11.3 A proposed new source or stationary source at a small facility for which full offsets are provided from a small facility bank established by the APCO pursuant to Regulation 2-4-414, and for which there will be no other significant environmental effect;

11.4 Projects satisfying the "no net emission increase" provisions of District Regulation 2, Rule 2 for which there will be some increase in the emissions of any toxic air contaminant, but for which the District staff's preliminary health risk screening analysis shows that a formal health risk assessment is not required, and for which there will be no other significant environmental effect. (Adopted July 17, 1991)

2-1-313 Projects Not Exempt From CEQA Review: Notwithstanding the exemptions from CEQA review set forth in Section 2-1-312, such exemptions shall not apply: (i) to any project for which the District staff's preliminary health risk screening analysis shows that a formal health risk assessment must be submitted by the applicant, or (ii) to any project covered by the categories set forth in subsections 2-1-312.1 through 312.9 where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances, or due to cumulative impacts of successive projects of the same type in the same place over time. Such projects shall be reviewed in accordance with the requirements of CEQA. (Adopted July 17, 1991)

2-1-314 Case-by-Case CEQA Determinations: Notwithstanding the requirement of Section 2-1-311, the District shall, for any permit applications which were deemed complete by the District on or before July 17, 1991, review said permit applications on a case-by-case basis in order to determine whether the District's evaluation of the permit application will involve any element of discretion. If as a result of this case-by-case-review, the District determines that the evaluation of the permit application will not involve any element of discretion on its part, then the application may be treated as a ministerial project so long as all of the following conditions are met:

314.1 The District makes a specific written finding to this effect as part of its determination that the permit application is complete;

314.2 The District will merely apply the law to the facts as presented in the permit application; and

314.3 The District's evaluation of the permit application and its decision regarding whether to issue the permit will be limited to the criteria set forth in Section 2-1-428. (Adopted July 17, 1991)

2-1-315 Denial, Failure to Mitigate Significant Adverse Environmental Impacts: For any application for which the District is a Lead Agency under CEQA, where significant adverse environmental impacts have been identified in the District's review of, or in the course of the public comment period on, said application, the APCO shall deny an authority to construct to such new or modified stationary source, as proposed, unless:

315.1 The applicant agrees to implement or carry out such available alternatives or mitigation measures which would, to the extent feasible, avoid or substantially lessen any such significant adverse environmental impacts as a condition for issuance of an authority to construct; or

315.2 The APCO finds that any such available, feasible alternatives or mitigation measures are within the responsibility and jurisdiction of another public agency, and such measures have been adopted by such other agency, or can and should be adopted by such other agency; or

315.3 The APCO finds that there are no feasible alternatives or measures to substantially mitigate the unavoidable adverse environmental effects associated with the project, but that the benefits of the project outweigh

such unavoidable adverse environmental effects, and the APCO states in writing the reasons and overriding considerations to support the issuance of the authority to construct based on the Final EIR and other information in the record notwithstanding the unavoidable adverse environmental effects associated with the project. (Amended November 20, 1991)

2-1-316 **New or Modified Sources of Toxic Air Contaminants:** If a new or modified source emits one or more toxic air contaminants in quantities that exceed the limits listed in Table 2-1-316, then the source shall be subject to the requirements of Sections 2-1-301 and 302, unless the owner or operator of the source can demonstrate to the satisfaction of the APCO, within 90 day of request per Regulation 1, Section 441, that the source would pass a risk screening analysis, as defined in Section 2-1-225, performed according to the current Air Toxic Risk Screening Procedure.

(As 2-1-109, Adopted April 16, 1986; Amended July 17, 1991; As 2-1-316; Adopted June 7, 1995)

2-1-317 **Public Nuisance Sources:** If any exempt source receives two or more public nuisance violations, under Regulation 1, Section 301 or Section 41700 of the California Health & Safety Code, within any consecutive 180-day period, then the source shall be subject to the requirements of Section 2-1-301 and 302. Such a source will be treated as loss of exemption source under Section 2-1-414, and will be subject to the annual permit to operate fee specified in Regulation 3. This section does not apply to a source that is exempt per section 2-1-113.

(Adopted June 7, 1995)

2-1-318 **Hazardous Substances:** If a new or modified source at a PSD Major Facility, as defined in Regulation 2, Rule 2, Section 220.3, emits the following air contaminants in excess of the quantities listed below, then it is subject to the requirements of Sections 2-1-301 and 302.

318.1 0.6 ton per year of lead,

318.2 0.007 ton per year of asbestos (excepting demolition, renovation, and waste disposal),

318.3 0.0004 ton per year of beryllium,

318.4 0.1 ton per year of mercury,

318.5 1 ton per year of vinyl chloride,

318.6 3 tons per year of fluorides,

318.7 7 tons per year of sulfuric acid mist, and

318.8 10 tons per year of reduced sulfur compounds (including hydrogen sulfide).

(As 2-1-111, Adopted October, 19, 1983; As 2-1-318, Adopted June 7, 1995)

2-1-400 ADMINISTRATIVE REQUIREMENTS

2-1-401 **Persons Affected:** Any person who has been granted or requires an authority to construct shall secure a permit to operate. In addition, the following shall apply for a permit to operate for any source used or operated before July 1, 1972 which is not subject to an exemption per Sections 2-1-104, 105, or 113 through 2-1-129:

401.1 On or before July 1, 1980, persons who operate a facility causing emissions of 2.5 tons per year or more of such air contaminants.

401.2 On or before July 1, 1980, persons who operate gasoline terminals, bulk plants and facilities that dispense gasoline for sale or dispense more than 60,000 gallons of gasoline per year.

(Amended April 16, 1986; June 7, 1995)

401.3 Persons who operate coating, adhesive, dipping, laminating, printing, screening, masking, electrodeposition, resist application, or similar source or equipment at any facility whose coating, adhesive, dipping, laminating, printing, screening, masking, electrodeposition, resist application, or similar source or equipment consume greater than 30 gallons of coating and emit 150 pounds of VOC per year or more on a facility wide basis, resulting from the applications of coatings. Upon request of the applicant, the APCO may

group coating operations which individually emit less than 150 lb/yr into a single facility-wide source, or other convenient grouping.

(Adopted January 7, 1987; Amended June 7, 1995)

401.4 Persons who operate surface preparation and cleaning equipment or operations which use unheated solvent solutions containing more than 10 percent VOC and which contain more than 1 gallon of solvent or have a liquid surface area of more than 1 $ft.^2$, including wipe cleaning operations with a net solvent usage greater than 20 gallons per year, and that emit 150 pounds of VOC per year or more, on a facility-wide basis. Upon request of the applicant, the APCO may group wipe cleaning operations into a single facility-wide source, or other convenient groupings.

(Adopted January 7, 1987; Amended July 17, 1991; June 7, 1995)

401.5 Persons who plan to modify an existing source or install a new source which qualifies for the Accelerated Permitting Program in Section 2-1-106 shall first submit a complete permit application, in accordance with Section 2-1-302.2 (Adopted June 7, 1995)

401.6 Persons who operate a source that is subject to either loss of exemption section 2-1-414 or 2-1-424. (Adopted June 7, 1995)

(Amended June 7, 1995)

2-1-402 **Applications:** Every application for an authority to construct or a permit to operate shall be submitted to the APCO on the forms specified, and shall contain all of the information required. Sufficient information must be received to enable the APCO to make a decision or a preliminary decision on the application and/or on any exemptions authorized by this Regulation. The APCO may consult with appropriate local and regional agencies to determine whether the application conforms with adopted plans and with local permit requirements.

2-1-403 **Permit Conditions:** Except as to permit applications reviewed in accordance with Section 2-1-311, the APCO may impose any permit condition that he deems reasonably necessary to insure compliance with federal or California law or District regulations. For any permit application which was reviewed as a ministerial project in accordance with Section 2-1-311, the APCO shall only impose permit conditions as set forth in Volume II of the District's Manual of Procedures for the type of source being permitted. The APCO may require the installation of devices for measurement or analysis of source emissions or ground-level concentrations of air contaminants. (Amended July 17, 1991)

2-1-404 **Changes in Throughput and Hours of Operation:** After a permit to operate has been issued, in accordance with subsections 2-1-401.1 through 401.4, changes in hours of operation, fuels, process materials or throughput are allowed only if emissions resulting from such changes are not of such quantity as would cause denial of an authority to construct after an air quality permit analysis made pursuant to the provisions of Rule 2 of this Regulation. "Change" is the use of a process or fuel not used in the prior 12 months, or a throughput level higher than the highest level in the prior 12 months or total monthly operating hours higher than any month in the prior 12 months.

404.1 The holder of a permit to operate shall advise the APCO not more than 30 days after any changes in hours of operation, fuels, process materials or throughput which might increase emissions.

404.2 The APCO shall act to revoke the permit to operate of any person who fails to comply with the requirements of this Section. (Amended July 17, 1991)

2-1-405 **Posting of Permit to Operate:** Every permit to operate, or approved designation thereof, shall be posted on or near the equipment for which the permit has been issued in such manner as to be clearly visible and accessible, or shall otherwise be available for inspection at all times.

2-1-406 **Transfer:** An authority to construct or a permit to operate shall not be transferable from one facility to another. An authority to construct or a permit to operate shall not be transferable from one person to another without obtaining written permission of the APCO.

2-1-407 **Permit Expiration:** An authority to construct shall expire two years after the date of issuance, unless substantial use of the authority has begun. However, an authority to construct may be renewed for an additional two years, subject to meeting the current BACT and offset requirements of Regulation 2-2-301, 302 and 303, upon receipt of a written request from the applicant and written approval thereof by the APCO prior to the expiration of the initial authority to construct.

(Amended July 17, 1991)

2-1-408 **Action on Applications:** Except for applications subject to Section 2-1-412, the publication and public notice requirements of Section 2-2-405 or to the provisions of Rules 2 or 6 of this Regulation, the APCO shall notify the applicant in writing of approval, approval with conditions, or denial of the application within ~~60~~ 49 days of receipt of a completed application, unless the time is extended with the written consent of the applicant.

408.1 Notwithstanding this 49-day limit, the APCO shall not take final action for any project for which an Environmental Impact Report or a Negative Declaration has been prepared until a Final EIR for that project has been certified or a Negative Declaration for that project has been approved, and the APCO has considered the information in that Final EIR or Negative Declaration. For cases in which the 49-day time period has elapsed, the APCO shall take final action on the application within 30 days after the certification of the Final EIR or approval of the Negative Declaration. This subsection shall not apply to any project which is exempt from the District's CEQA requirements pursuant to Section 2-1-311 or 2-1-312. Any substantive change to an application which occurs after the evaluation period has commenced shall allow the APCO to start a new completeness review period, and to reset the 49 day limit after the application has been deemed complete. (Amended 11/1/89; 7/17/91; 11/20/91; 11/3/93; 6/7/95)

2-1-409 **Regulations in Force Govern:** The decision as to whether an authority to construct shall be granted or denied shall be based on federal, state and District BACT and offset regulations in force on the date the application is declared by the APCO to be complete.

2-1-410 **Appeal:** The following actions of the APCO may be appealed:

410.1 In accordance with Section 42302 of the Health and Safety Code an applicant for an authority to construct which has been denied may request, within 10 days after receipt of the written notice to deny, the Hearing Board of the District to hold a hearing on whether or not the authority to construct was properly denied.

410.2 In accordance with Section 42302.1 of the Health and Safety Code, within 10 days of any decision of the APCO, pertaining to the issuance of an authority to construct, any aggrieved person who, in person or through a representative, appeared, submitted written testimony, or otherwise participated in the action before the District may request the Hearing Board of the District to hold a public hearing to determine whether the authority to construct was properly issued or for an order modifying or reversing that decision. Such appeals shall be filed in writing and contain a summary of the issues to be raised. The Hearing Board shall consider the appeal at a public hearing within 30 days of the filing of the appeal. The Hearing Board may reverse or modify the decision of the APCO if it determines that the decision was erroneous. (Amended July 17, 1991; November 20, 1991)

2-1-411 **Permit to Operate, Final Action:** The APCO shall take final action to approve, approve with conditions, or disapprove a permit to operate a facility subject to this rule within 60 days after the initial date of the start-up period of the new or modified source. This time period may be extended upon the written request of the applicant stating the reasons why further start-up time is needed. In no case shall the APCO allow the start-up period to be greater than 180 days. All conditions, specific or implied, of the authority to construct are in effect during the entire start-up period.

411.1 Notwithstanding the above, final action taken on permits issued pursuant to Rule 6 of this Regulation shall be in accordance with the provisions of Section 2-6-410.

(Adopted October 19, 1983; Amended July 17, 1991, November 3, 1993)

2-1-412 Public Notice, Schools: Prior to approving an application for an authority to construct a new or modified source which emits any substance into the ambient air which is on the list required to be prepared pursuant to subdivision (a) of Section 25532 and Section 44321 of the Health and Safety Code and which is located within 1000 feet from the outer boundary of a school, the APCO shall:

412.1 Prepare a public notice in which the proposed new or modified source, and the proposed emissions, are fully described.

412.2 Distribute the notice, prepared in accordance with subsection 2-1-412.1 at the expense of the applicant, to the parents of children in any school within one-quarter mile of the source and to each address within a radius of 750 feet from the outer property line of the proposed new or modified source. This notice shall be distributed at least 30 days prior to the date final action on the application is to be taken by the APCO. The APCO shall review and consider all comments received during the 30 days after the notice is distributed, and shall include written responses to the comments in the permit application file prior to taking final action on the application.

(Adopted November 1, 1989)

2-1-413 Portable Equipment Operated Within the District: Any person required to obtain an authority to construct and permit to operate under Sections 2-1-301 and 302 for a portable source can elect to receive a single portable permit which will allow the source to operate anywhere in the District, provided the APCO approves the permit, and the source meets the definition of portable equipment set forth in Section 2-1-220. Such a source is subject to the standard filing, initial and permit to operate fees in Regulation 3. (Adopted June 7, 1995)

2-1-414 Loss of Exemption, Public Nuisance: Any source subject to Section 2-1-317 shall be subject to permit conditions deemed necessary by the District to minimize the potential for future violations. If the owner/operator can demonstrate that the source has neither received a public nuisance violation nor received a confirmed complaint for a two year period after the permit was issued, then the owner/operator may submit a written petition to the APCO to remove the permit requirement. Such a petition is subject to APCO approval. (Adopted June 7, 1995)

2-1-415 Source Pre-Certification Procedure: Any person may submit a written request to pre-certify a source, for the purposes of qualifying the source for the Accelerated Permitting Program. Such a request will be evaluated within 60 days of receipt of the information listed below. The APCO may also independently pre-certify a source. The APCO shall maintain a list of pre-certified equipment, and shall make this list available to industry through the Public Information & Education Division. A pre-certification request shall include all of the following:

415.1 a complete description of the source, including make, model number, rated capacity and emission calculations at maximum operating rate;

415.2 applicable BACT requirements;

415.3 proposed permit conditions governing operation of the source; and

415.4 applicable fees, as described in Regulation 3, Section 323.

(Adopted June 7, 1995)

2-1-416 Temporary Amnesty for Unpermitted Sources: The APCO has the authority to declare an amnesty period, during which the District may waive all or part of the penalty fees, including late fees and retroactive permit fees, for sources which are currently operating without valid Permits to Operate. (Adopted June 7, 1995)

2-1-420 Suspension: The APCO may suspend a permit if, within a reasonable time, the holder of the permit willfully fails or refuses to furnish requested information, analyses, plans or specifications relating to emissions from the source for which the permit was issued. The APCO shall serve notice in writing of a suspension, and the

reasons therefor, on the holder of the permit. A suspension shall become effective 5 days after notice has been served.

2-1-421 **Appeal from Suspension:** Within 10 days after the receipt of the notice of suspension, the permit holder may request the Hearing Board to hold a hearing to determine whether or not the permit was properly suspended.

2-1-422 **Revocation:** The APCO may request the Hearing Board to hold a hearing to determine whether a permit should be revoked if it is found that the holder of a permit is violating any applicable order, rule or regulation of the District, or is violating any condition attached to the permit.

2-1-423 **Hearings:** Within 30 days after receipt of requests submitted pursuant to Sections 2-1-421 and 422, the Hearing Board shall hold a hearing as provided by Section 42308 of the California Health and Safety Code and may take action as authorized by Section 42309 of the California Health and Safety Code. (Amended July 17, 1991)

2-1-424 **Loss of Exemption:** Within 90 days of written notification by the APCO of the need for a permit, any person exempt under Sections 2-1-103, 104, 105, 113 through 128 or 2-1-401 who loses an exemption because of changes in those Sections or changes in federal, California or District laws or regulations shall submit a complete permit application for the subject source, as defined Section 2-1-202. A person requested by the APCO to apply for permits to operate under the provisions of Sections 2-1-316 through 318, 401 or 425 who holds a valid permit to operate, need not reapply. (Adopted April 16, 1986; Amended June 7, 1995)

2-1-425 **Sources of Toxic Air Contaminants:** Any person who does not hold a valid permit to operate in accordance with Section 2-1-401 and emits, in quantities determined to be appropriate by the APCO, any toxic air contaminant, shall within 90 days of written notice by the APCO of the need for a permit to operate, complete a permit application for the subject source, in accordance with the applicable requirements of Section 2-1-202 or Section 2-1-302.2. (Amended June 7, 1995)

2-1-426 **CEQA-Related Information Requirements:** Unless a project for which an authority to construct is sought is exempt from the District's CEQA requirements pursuant to Section 2-1-311 of this Rule, applicants for authorities to construct shall provide, as part of a complete application, the following CEQA-related information:

426.1 A preliminary environmental study which shall describe the proposed project and discuss any potential significant adverse environmental impacts, alternatives to the project, and any necessary mitigation measures to minimize adverse impacts. The preliminary environmental study shall include all activities involved in the project and shall not be limited to those activities affecting air quality. In preparing the preliminary environmental study, the applicant may utilize the Environmental Information Form in Appendix H of the State CEQA Guidelines or an equivalent format specified by the APCO. (see also Appendix G, Significant Effects.) The preliminary environmental study shall list all other local, state and federal governmental agencies that require permits for the project and indicate any environmental documentation required by such agencies; or

426.2 When an agency other than the District is to be the Lead Agency under CEQA, either:

- 2.1 A Draft or Final Environmental Impact Report prepared by or under the supervision of the Lead Agency; or
- 2.2 A contract for the preparation of a Draft Environmental Impact Report executed by the Lead Agency together with the Initial Study prepared by the Lead Agency; or
- 2.3 A Negative Declaration prepared by the Lead Agency; or
- 2.4 A Notice of Preparation of a Draft EIR prepared by the Lead Agency;
- 2.5 A copy of the Initial Study prepared by the Lead Agency, or
- 2.6 A commitment in writing from another agency indicating that it has assumed the role of Lead Agency for the project in question.

(Adopted July 17, 1991)

2-1-427 **Procedure for Ministerial Evaluations:** The District shall review each permit application prior to finding that it is complete in order to determine whether its evaluation of the permit application is covered by the specific procedures, fixed standards and objective measurements set forth in Volume II of the District's Manual of Procedures. If the District determines that its evaluation of the permit application is covered by specific procedures, fixed standards and objective measurements set forth in Volume II of the District's Manual of Procedures, the District's evaluation of that permit application will be classified as ministerial and the engineering evaluation of the permit application by the District will be limited to the use of said specific procedures, fixed standards and objective measurements. For such projects, the District will merely apply the law to the facts as presented in the permit application, and the District's decision regarding whether to issue the permit will be based only on the criteria set forth in Section 2-1-428 and in Volume II of the District's Manual of Procedures. (Adopted July 17, 1991)

2-1-428 **Criteria for Approval of Ministerial Permit Applications:** If the District classifies a permit application as ministerial pursuant to Section 2-1-427, and as a result of its evaluation of that permit application, the District determines that all of the following criteria are met, the issuance by the District of an Authority to Construct for the proposed new or modified source will be a mandatory ministerial duty.

428.1 The proposed new or modified source will comply with all applicable provisions of the District's Rules and Regulations and with all applicable provisions of state and federal law and regulations which the District has the duty to enforce;

428.2 The emissions from the proposed project can be calculated using standardized emission factors from published governmental sources, District source test results, established formulas from published engineering and scientific handbooks, material safety data sheets or other similar published literature, manufacturer's warranties or other fixed standards as set forth in Volume II of the District's Manual of Procedures;

428.3 Where Best Available Control Technology is required, BACT for the proposed new or modified source can be determined based on the latest edition of the ARB's BACT/LAER Clearinghouse, on the District's own compilations of BACT levels for specific types of sources as set forth in Volume II of the District's Manual of Procedures or on a more stringent BACT level proposed by the project proponent; and

428.4 If the proposed new or modified source involves the shutdown of an existing source, the Reasonably Available Control Technology applicable to the source to be shut down can be determined from existing provisions of the District's Rules and Regulations or from the District's own compilations of BACT levels for specific types of sources as set forth in Volume II of the District's Manual of Procedures.

In addition, when the District has issued an authority to construct for a proposed new or modified source as a ministerial project, the issuance of the permit to operate for that source will also be a mandatory ministerial duty if the source will meet all the conditions imposed in connection with the issuance of the authority to construct and all applicable laws, rules and regulations enforced by the District.

(Adopted July 17, 1991)

2-1-429 **Federal Emissions Statement:** The owner or operator of any source which emits or may emit oxides of nitrogen or volatile organic compounds shall provide the APCO with a written statement, in such form as the APCO prescribes, showing actual emissions of oxides of nitrogen and volatile organic compounds from that source. At a minimum the emission statement shall contain all of the information contained in the Air Resources Board's Emission Inventory Turn Around Document as described in Instructions for the Emission Data System Review and Update Report. The statement shall also contain a certification by a responsible official of the company or facility that the information contained in the statement is accurate to the best knowledge of the individual certifying the statement. Effective November 1,

1994, the statement shall be submitted to the District each year with the annual permit renewal.

The APCO may waive this requirement for any class or category of sources which emit less that 25 tons per year of oxides of nitrogen and volatile organic compounds, each taken separately, if the District provides the Air Resources Board with emission inventories of sources emitting greater than 10 tons per year of either oxides of nitrogen or volatile organic compounds based on the use of emission factors acceptable to the Air Resources Board and the U.S. Environmental Protection Agency (EPA). A current list of classes and categories of stationary sources for which this requirement has been waived by the APCO will be kept by the District and made available upon request.

Also, for purposes of reporting emission data to the Air Resources Board and to the EPA, the District will provide calendar year and peak ambient ozone season data determined through weighted averaging of current and prior year (if available) company/facility reported certified information.

This Section is required by the provisions of Section 182(a)(3)(B) of the Clean Air Act.

(Adopted November 4, 1992; Amended June 15, 1994; June 7, 1995)

2-1-500 MONITORING AND RECORDS

2-1-501 Monitors: Continuous emission monitors required pursuant to Section 2-1-403 shall comply with the provisions of Volume V of the Manual of Procedures.

(Adopted March 17, 1982)

2-1-600 MANUAL OF PROCEDURES

2-1-601 Engineering Permitting Procedures: The specific procedures for the engineering evaluation of particular types of sources as well as specific fixed standards and objective measurements upon which the District will rely in its evaluation of ministerial permit applications are set forth in Volume II of the District's Manual of Procedures. (Adopted July 17, 1991)

2-1-602 CEQA Guidelines: The District's Guidelines for Environmental Processes under CEQA for those cases in which the District assumes the role of Lead Agency are set forth in Volume VII to the District's Manual of Procedures and in the Permit Handbook. (Adopted July 17, 1991; Amended June 7, 1995)

REGULATION 2, RULE 1
PERMIT/EXEMPTION FLOW CHART
FIGURE 2-1-101

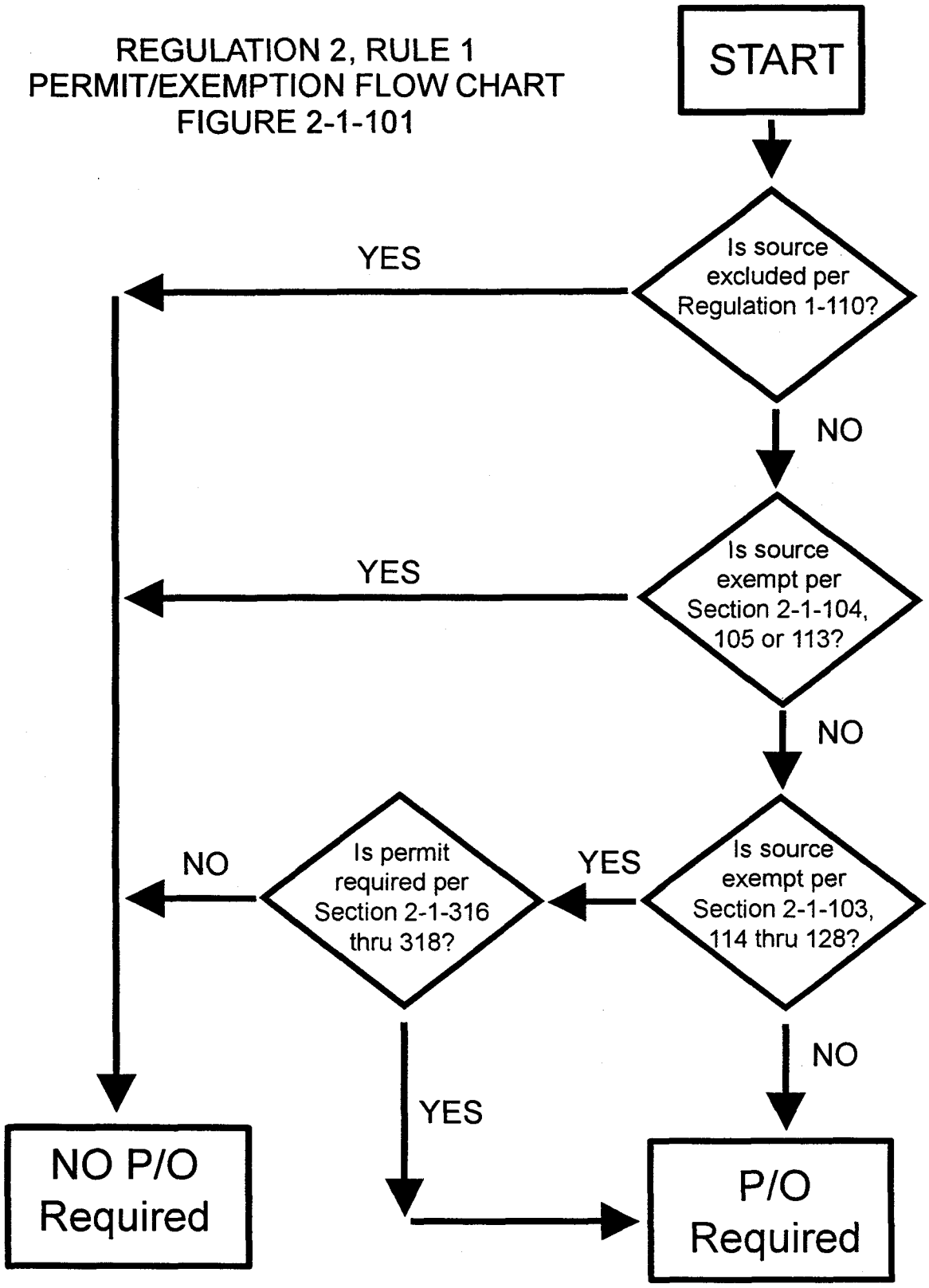


Table 2-1-316
Toxic Air Contaminant Trigger Levels

Compound	CAS Number	Trigger Level (lb/year)
Acetaldehyde	75070	7.20E+01
Acrolein	107028	3.90E+00
Acrylamide	79061	1.50E-01
Acrylonitrile	107131	6.70E-01
Allyl chloride	107051	1.93E+02
Ammonia	7664417	1.93E+04
Arsenic and arsenic compounds (inorganic)	7440382*	2.40E-02
Asbestos	1332214	3.00E-03
Benzene	71432	6.70E+00
Benzidine (and its salts)	92875*	1.40E-03
Benzyl chloride (see chlorotoluenes)	100447	
Beryllium and beryllium compounds	7440417*	1.50E-02
Bis(chloromethyl)ether	542881	1.50E-02
Bromine and bromine compounds (inorganic)	7726956*	3.28E+02
Butadiene, 1,3-	106990	1.10E+00
Butyl alcohol, tert-	75650	1.37E+05
Cadmium and cadmium compounds	7440439*	4.60E-02
Carbon disulfide	75150	1.43E+04
Carbon tetrachloride	56235	4.60E+00
Chlorinated dibenzodioxins and dibenzofurans (TCDD equivalent)	1746016*	1.20E-06
Chlorine	7782505	1.37E+03
Chlorobenzene	108907	1.35E+04
Chlorofluorocarbons	*	1.35E+05
Chloroform	67663	3.60E+01
Chlorophenol, 2-	108430	3.47E+03
Chloropicrin	76062	3.28E+02
Chloroprene	126998	1.50E+03
Chlorotoluenes	100447*	2.32E+03
Chromium (hexavalent) and chromium (hexavalent) compounds	18540299*	1.40E-03
Copper and copper compounds	7440508*	4.63E+02
Cresol	1319773	3.47E+04
Dibromo-3-chloropropane,1,2- (DBCP)	96128	9.70E-02
Dichlorobenzene, 1,4-	106467	6.80E+01
Dichlorobenzidene, 3,3'-	91941	5.60E-01
Dichloroethylene, 1,1- (see vinylidene chloride)		
Diethylaminoethanol	100378	2.12E+04
Diethylhexylphthalate (DEHP)	117817	8.10E+01
Dimethyl phthalate	131113	2.32E+03
Dimethylamine	124403	3.86E+02
Dioctyl phthalate	117840	2.32E+03
Dioxane, 1,4-	123911	2.50E+01
Epichlorohydrin	106898	8.30E+00
Ethyl acetate	141786	6.56E+05
Ethyl acrylate	140885	9.26E+03
Ethyl alcohol (ethanol)	64175	8.69E+05
Ethyl chloride	75003	1.93E+06
Ethyl benzene	100414	1.93E+05
Ethylene dibromide (1,2-dibromoethane)	106934	2.70E+00

Compound	CAS Number	Trigger Level (lb/year)
Ethylene dichloride (1,2-dichloroethane)	107062	9.70E+00
Ethylene oxide	75218	2.10E+00
Formaldehyde	50000	3.30E+01
Freons (see Chlorofluorocarbons)		
Glutaraldehyde	111308	3.28E+02
Glycol ethers:		
2-Ethoxy ethanol (cellosolve; ethylene glycol monoethyl ether)	110805	3.86E+04
2-Ethoxyethyl acetate (cellosolve acetate; ethylene glycol monoethyl ether acetate)	111159	1.24E+04
2-Methoxy ethanol (methyl cellosolve; ethylene glycol monomethyl ether)	109864	3.86E+03
2-Methoxyethyl acetate (methyl cellosolve acetate; ethylene glycol monomethyl ether acetate)	110496	1.10E+04
2-Butoxy ethanol (Butyl cellosolve; ethylene glycol monobutyl ether)	111762	3.86E+03
Hexachlorobenzene	118741	3.90E-01
Hexachlorocyclohexanes	58899*	1.80E-01
Hexachlorocyclopentadiene	77474	4.63E+01
Hexane, n-	110543	8.30E+04
Hydrazine	302012	3.90E-02
Hydrogen bromide (hydrobromic acid)	10035106	4.63E+03
Hydrogen chloride	7647010	1.35E+03
Hydrogen cyanide	74908	1.35E+04
Hydrogen fluoride	7664393	1.14E+03
Hydrogen sulfide	7783064	8.11E+03
Isocyanates:		
Methylene-bis-phenyl isocyanate	101688	1.83E+01
Methyl isocyanate	624839	6.95E+01
Toluene diisocyanates	26471625*	1.83E+01
Isophorone	78591	6.56E+04
Isopropyl alcohol	67630	4.44E+05
Lead, inorganic, and lead compounds	7439921*	2.90E+01
Maleic anhydride	108316	4.63E+02
Manganese and manganese compounds	7439965*	7.70E+01
Mercury and mercury compounds (inorganic)	7439976*	5.79E+01
Methyl alcohol (methanol)	67561	1.20E+05
Methyl bromide	74839	1.16E+03
Methyl chloroform (1,1,1-TCA)	71556	6.18E+04
Methyl mercury	593748	1.93E+02
Methyl methacrylate	80626	1.89E+05
Methylene chloride	75092	1.90E+02
Methylene dianiline and its dichloride, 4,4'-	101779*	3.67E+02
Methylethylketone (MEK)	78933	1.49E+05
Methylpyrrolidone, N-	872504	1.83E+05
Naphthalene	91203	2.70E+02
Nickel and nickel compounds	7440020*	7.30E-01
Nitric acid	7697372	2.34E+03
Nitrobenzene	98953	3.28E+02
Nitropropane, 2-	79469	3.86E+03
Nitrosodiethylamine, N-	55185	1.90E-02
Nitrosodimethylamine, N-	62759	4.20E-02
Nitrosodi-n-butylamine, N-	924163	6.20E-02

Compound	CAS Number	Trigger Level (lb/year)
Nitrosodi-n-propylamine, N-	621647	9.70E-02
Nitrosodiphenylamine, p-	86306	7.30E+01
Nitrosomethylethylamine, N-	10595956	3.10E-02
Nitrosopyrrolidine, N-	930552	3.30E-01
PAHs (including but not limited to):	*	
Benz[a]anthracene	56553	4.30E-02
Benzo[b]fluoroanthene	205992	4.30E-02
Benzo[k]fluoroanthene	205823	4.30E-02
Benzo[a]pyrene	50328	4.30E-02
Dibenz[a,h]anthracene	53703	4.30E-02
Indeno[1,2,3-cd]pyrene	193395	4.30E-02
PCBs (polychlorinated biphenyls)	1336363*	7.00E-03
Pentachlorophenol	87865	4.20E+01
Perchloroethylene (tetrachloroethylene)	127184	3.30E+01
Phenol	108952	8.69E+03
Phosgene	75445	1.83E+02
Phosphine	7803512	1.93E+03
Phosphoric acid	7664382	4.63E+02
Phosphorus (white)	7723140	1.39E+01
Phthalic anhydride	85449	1.35E+06
Propylene oxide	75569	5.20E+01
Selenium and selenium compounds	7782492*	9.65E+01
Sodium hydroxide	1310732	9.26E+02
Styrene monomer	100425	1.35E+05
Tetrachlorophenols	25167833*	1.70E+04
Tetrahydrofuran	109999	2.70E+05
Toluene	108883	3.86E+04
Trichlorobenzene, 1,2,4-	120821	1.83E+04
Trichloroethane, 1,1,1- (see Methyl chloroform)		
Trichloroethylene	79016	9.70E+01
Trichlorophenol, 2,4,6-	88062	9.70E+00
Urethane (ethyl carbamate)	51796	6.60E-01
Vapam (sodium methyldithiocarbamate)	137428	2.20E+04
Vinyl chloride	75014	2.50E+00
Vinylidene chloride	75354	6.18E+03
Xylenes	1330207*	5.79E+04
Zinc and zinc compounds	7440666*	6.76E+03

* -- This is a chemical compound group. If a CAS number is listed, it represents only a single chemical within the chemical class (for metallic compounds, the CAS number of the elemental form is listed; for other compounds, the CAS number of a predominant compound in the group is given).

n/a --No CAS number is available for this compound or compound group.

If the emissions from a source are less than the listed trigger-levels, it is assumed that the source would not fail a risk screen. If the emissions are equal or greater than one or more of the trigger-levels, a risk screen should be completed to determine the source's exemption status.

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
BEST AVAILABLE CONTROL TECHNOLOGY (BACT) GUIDELINE

Source (equipment or process): ***Solid Material Handling (Conveying, Size Reduction, Classification) - Dry***

Class (rated capacity): ***All***

Revision: ***1***
Date: ***10/18/91***

POLLUTANT	BACT: 1. Technologically Feasible/Cost Effective 2. Achieved In Practice	TYPICAL TECHNOLOGY
POC	1. *n/a* 2. *n/a*	1. *n/a* 2. *n/a*
NO_x	1. *n/a* 2. *n/a*	1. *n/a* 2. *n/a*
SO_2	1. *n/a* 2. *n/a*	1. *n/a* 2. *n/a*
CO	1. *n/a* 2. *n/a*	1. *n/a* 2. *n/a*
PM_{10}	1. *n/d* 2. *Enclosure of size reduction and classification equipment, conveyors, and associated material transfer points and vent to baghouse(s) w/ <0.01 gr/dscf*[a,1]	1. *n/d* 2. *BAAQMD Approved Design and Operation*[a]
NPOC	1. *n/a* 2. *n/a*	1. *n/a* 2. *n/a*

References (BACT Determination)

a. BAAQMD
b. TBACT

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
BEST AVAILABLE CONTROL TECHNOLOGY (BACT) GUIDELINE

Source (equipment or process): ***Soil Vapor Extraction***
Class (rated capacity): ***All***

Revision: ***3***
Date: ***06/16/95***

POLLUTANT	BACT: 1. Technologically Feasible/Cost Effective 2. Achieved In Practice	TYPICAL TECHNOLOGY
POC	1. *≤10 ppmv at outlet of control device; or ≥98.5% capture/destruction efficiency* [a,T] 2. *≤10 ppmv at outlet of control device; or ≥98.5% capture/destruction efficiency if inlet VOC ≥2000 ppmv; or ≥97% capture/destruction efficiency if inlet VOC ≥200 to <2000 ppmv; or ≥90% capture/destruction efficiency if inlet VOC <200 ppmv* [a,T]	1. *Two or More Activated Carbon Canisters in Series or Thermal Oxidizer* [a,T] 2. *Two or More Activated Carbon Canisters in Series or Thermal Oxidizer or Catalytic Oxidizer* [a,T]
NO_x	1. *n/a* 2. *n/a*	1. *n/a* 2. *n/a*
SO_2	1. *n/a* 2. *n/a*	1. *n/a* 2. *n/a*
CO	1. *n/a* 2. *n/a*	1. *n/a* 2. *n/a*
PM_{10}	1. *n/a* 2. *n/a*	1. *n/a* 2. *n/a*
NPOC	1. *≤10 ppmv at outlet of control device* [a,T] 2. *≤10 ppmv at outlet of control device; or ≥95% capture/recovery efficiency* [a,T]	1. *Two or More Activated Carbon Canisters in Series* [a,T] 2. *Two or More Activated Carbon Canisters in Series* [a,T]

References (BACT Determination)

a. BAAQMD
T. TBACT

SOURCE TEST PROCEDURE ST-7

ORGANIC COMPOUNDS

(Amended April 15, 1992)

REF: Regulation 8

1. Applicability

1.1 This procedure is used to quantify emissions of organic compounds. It is applicable to the determination of compliance with Regulation 8.

1.2 The combustion technique detailed in ST-7 is not applicable when carbon dioxide constitutes over 85%, on a molar basis, of the total carbon (organic plus inorganic, as C_1), in the sample.

1.3 The use of a Flame Ionization Detector (FID) for direct measurement of organic compounds may be used when carbon dioxide constitues over 85%, on a molar basis, of the total carbon in the sample.

2. Principle

2.1 Combustion Technique: A continuous sample of effluent is passed through a combustion tube. The combusted sample is conditioned to remove water and particulate. The continuously combusted sample is analyzed for Total Carbon (TC) using a Non-Dispersive Infrared (NDIR) CO_2 analyzer. At the same time, a continuous sample of effluent is conditioned to remove water and particulate material. This sample which has bypassed the combustion tube is analyzed to determine the background CO_2, CO, and methane concentrations which are subtracted from the TC value to determine the Non-Methane Organic Carbon (NMOC) concentration. The background CO_2 concentration is measured using the same NDIR as that used to measure TC.

2.2 FID Direct Measurement: A continuous sample of effluent is conditioned to remove water and particulate material. The conditioned sample is analyzed for Total Hydrocarbons (THC) by FID. NMOC concentration is calculated by subtracting the methane concentration from the THC concentration.

2.3 The methane content of the sample is determined either (A) by filling an evacuated cylinder with sample for subsequent gas chromatographic analysis or (B) by directing a portion of the conditioned sample through a bed of activated carbon to remove NMOC and then into a FID.

3) Range and Sensitivity

3.1 The minimum measurable concentration of carbon dioxide is 10 ppm if the appropriate NDIR cell is used.

3.2 The maximum concentration of organic compounds for which the combustion technique in this procedure is applicable is 5% when the appropriate NDIR cell is used.

3.3 The minimum sensitivity of the NDIR is 2% of full scale.

3.4 Use of the combustion technique requires a molar concentration ratio of oxygen to VOC of 5:1 or greater.

3.5 The minimum measurable concentration of THC by FID is 5 ppmv when interferences are not present.

3.6 The minimum sensitivity of the FID is 2% of full scale.

4. Interferences

4.1 Combustion Technique:Negative bias may occur due to reaction of highly reactive organics (e.g., aldehydes or acids) with internal surfaces or if the condensation point of the sample is above the condenser temperature. Combustion at the emission point, prior to condenser and the use of the minimum probe to combustor tubing length, greatly reduces this bias.

4.2 Combustion Technique: High concentrations or widely varying concentrations of methane, carbon monoxide or carbon dioxide may adversely affect the accuracy of this procedure for the measurement of the organic compounds present. Alternate methods may be used upon prior approval by the Source Test Section Manager.

4.3 FID Direct Measurement: Response factors vary between hydrocarbons. Propane used as a span gas minimizes this variability. The measurement of chlorinated hydrocarbons, in some instances, may require the use of an alternative span gas. Use of an alternative span gas must be approved by the Source Test Manager.

4.4 FID Methane Measurement: The activated charcoal scrubber adsorbs non-methane hydrocarbons from sample gas before its subsequent analysis by FID. Previous contamination or unclean activated charcoal in this scrubber can lead to the determination of erroneously high levels of methane. This problem is obviated by establishing a zero methane base-line response. Methane determination requires that the response time must be sufficient to allow for the residence time of sample gas in the carbon adsorber.

5. Apparatus

5.1 Carbon dioxide analyzer. Use a non-dispersive infrared gas analyzer(in accordance with ST-5).

5.2 Carbon monoxide analyzer. Use a non-dispersive infrared gas analyzer (in accordance with ST-6).

5.3 Flame ionization detector.

5.4 Chart recorder. Record the continuous output from each analyzer.

5.5 Sample conditioning, zero air, and span gas system. Assemble this system as shown in Figure IV-18. Sample conditioning system shall provide a dry, particulate-free gas flow to the instrument. The zero-air system shall provide clean, dry CO_2 free air for instrument calibration. The span-gas system shall provide known concentration of the appropriate gas for use in calibrating the analyzers. Except as specified, all materials which come in contact with either the sample or span gases must be constructed of Teflon or stainless steel.

5.7 Sample probe. Use a tube of inert material and sufficient length to traverse the stack being tested. If the stack temperature exceeds 425C (800F), use a quartz probe. Other probes are acceptable subject to approval by the Source Test Section.

5.8 Condensers. Use modified Greenberg-Smith impingers with the impaction plates removed and the inlet tubes shortened to a length of 10 CM (4 inches).

5.9 Cooling system. Immerse the impingers in an ice bath during the test.

5.10 Particulate filter. Use a Balston type 95 holder with a grade B filter, or equivalent, in the sample system.

5.11 Pumps. Use leak-free, Teflon-lined, diaphragm pumps in the sample and zero air system. The pumps shall have a free-flow capacity of at least 28 liters/min. (1.0 CFM).

5.12 Gas scrubber. Use a bed of silica gel, Ascarite (or soda-lime), and charcoal to remove moisture, carbon dioxide, and hydrocarbons from the zero air system.

5.13 Span gas. Use a high-pressure cylinder containing a known concentration of propane in air or nitrogen. A cylinder containing a known concentration of solvent, where applicable, may also be used. This option may only be used with prior approval of the Source Test Section.

5.14 Combustor. Use a system to oxidize all organics in the sample including methane. Examples of acceptable combustion tubes found adequate by the BAAQMD are described in Figures IV-19 and 20.

6. Pre-Test Procedures

6.1 Warm-up the instruments according to manufacturers' instructions.

6.2 Assemble the sampling system as shown in Figure IV-21A or IV-21B.

6.3 Leak-test the sampling system by starting the pump, plugging the probe, and assuring that the pressure to the analyzer falls to zero.

6.4 Introduce zero-air into the analyzers and calibrate the instruments according to manufacturers' instructions.

6.5 Introduce span-gas into the analyzers and calibrate the instruments according to manufacturers' instruction.

6.6 Conduct a preliminary concentration traverse (in accordance with ST-18) to determine if stratification of the stack gases exists. If the hydrocarbon concentration at any point differs from the average concentration by more than 10%, traverse the stack during the test; if not, sample at any single point.

6.7 Prepare the chart recorder according to manufacturer's instructions.

6.8 Set the voltage to the combustor to at least 14 volts A.C. for the combustor illustrated in Figure IV-19. Efficiency of this combustor will be a function of the platinum wire, voltage, sample flow-rate and sample composition. All voltages will be combustor specific and efficiency data may be requested by the Source Test Section.

6.9 Set the temperature of the combustor to 870°C^{+}/-10°C (1598°F^{+}/18°F) for the combustor in Figure IV-20. The residence time of sample through this combustor must be greater than 2 seconds. Efficiency data may be required by the Source Test Section.

7. Sampling

7.1 Each test run shall be of 30 minute duration when testing from continuous operations. Each test run of a batch operation shall be for 90% of the batch time or thirty minutes, whichever is less.

7.2 At sources requiring both inlet and outlet tests on a control device (e.g., afterburners), the test times may be adjusted to aid in obtaining representative results.

7.3 Introduce sample gas into the analytical system at the same flow rate used to calibrate the analyzers.

7.4 By-pass the combustion tube (at approximately ten minute intervals), to measure the background CO_2, CO, and methane in the sample stream.

7.5 Verify that the CO and THC concentrations from the combustor are zero. Non-zero concentrations of these parameters must be continuously monitored during all combustion technique testing.

7.6 Determine the methane concentration by either passing a portion of the sample stream through an activated carbon scrubber to remove non-methane hydrocarbons and then through a flame ionization detector or by obtaining a grab sample for analysis by Lab 17.

7.7 Maintain ice in the cooling system throughout the test.

7.8 Calibrate the analyzers before and after each test run. Record each step of the process on the chart recording.

7.9 Conduct three consecutive test runs.

8. Auxiliary Tests

8.1 Stack gas flow rate. Use ST-17 to determine the stack gas flow rate after each test run.

8.2 Moisture content. Use ST-23 to determine the moisture content of the stack gases.

9. Calculations

9.1 Use Equations 1 and 2 to calculate Non-Methane Organic Compound concentrations from Combustion Technique data.

$$C_{TC} = (C_{TC})_{Comb} + (C_{CO})_{Comb} + (C_{THC})_{Comb} \quad (1)$$

$$C_{NMOC} = C_{TC} - C_{CO2} - C_{CO} - C_{M} \quad (2)$$

9.2 Use Equation 3 to calculate Non-Methane Organic Compound concentrations from FID Direct Measurement data:

$$C_{NMOC} = C_{THC} - C_{M} \quad (3)$$

9.3 Mass flow rate of the non-methane organic compounds, as carbon are calculated according to equation 4.

$$M_{NMOC} = \frac{12(\text{lb C/lb-mole } C_1) \times Q_0 \times C_{NMOC} \times 60 \text{ (min/hr)}}{386.9 \text{ (SDCF/lb-mole)} \times 10^6 \text{(ppm)}}$$

9.4 Mass flow rate of Volatile Organic Compounds are calculated according to equation 5:

$$M_{voc} = \frac{X_{voc} \times Q_o \times C_{NMOC} \times 60 \text{ (min/hr)}}{386.9 \text{ (SDCF/lb-mole)} \times 10^6 \text{(ppm)}} \quad (5)$$

9.5 Molecular weight and VOC Density Calculations. If organic mass rate emissions are subject to rules requiring the determination of precusor organic compounds or volatile organic compounds, then the average molecular weight of VOC per carbon (X_{voc})must be determined. If it is not practicable to determine or estimate X_{voc}, then a value of 14 lb/lb-mol shall be used. Calculations of exhaust emission rates shall be based upon the same X_{voc} as that determined for the inlet. Use the worksheet shown in Figure IV-22 to correctly calculate or estimate the average molecular weight.

9.6 Mass flow rate of carbon monoxide is calculated according to equation 6:

$$M_{co} = \frac{28\text{(lb CO/lb-mole)} \times Q_o \times C_{co} \times 60 \text{ (min/hr)}}{386.9 \text{ (SDCF/lb-mole)} \times 10^6 \text{(ppm)}} \quad (6)$$

9.7 The VOC Emission Factor, $(m_{Ctg})_{overall}$, from coating operations, will be calculated according to equation 7. If organic emissions are subject to equivalent control (for example: Regulation 8 Rule 11, Section 302), the Equivalent Coatings Emission Factor, $(m_{EQCtg})_{overall}$, shall be calculated using worksheet shown in Figure IV-23. Fugitive emissions shall be added to measured emission rates by calculating solvent usage rate (lb/hr), subtracting control device inlet VOC rate and adding the result to the control device outlet VOC rate.

$$(m_{Ctg})_{overall} = \frac{(M_{voc})_{overall}}{\text{Application Rate (gal/hr)}} \quad (7)$$

9.8 If organic emissions are controlled by incineration, the efficiency of oxidation to carbon dioxide for the determination of exemption in Regulation 8, Rule 1, Section 110.3, shall be calculated using equations 8 or 9. Operations whose emissions are not controlled by incineration or are not subject to the exemption, shall be calculated using equations 10 or 11.

9.8.1 If the control device is an incinerator and $(M_{co})_{out}$ is greater than $(M_{co})_{in}$, then control efficiency will be calculated using equation 8 or 9:

$$E_{device} = \frac{(M_{NMOC})_{in} - (M_{NMOC})_{out} - (^{12 \text{ lb NMOC}}/_{28 \text{ lb CO}}) \times \{(M_{co})_{out} - (M_{co})_{in}\}}{(M_{NMOC})_{in}} \times 100\% \quad (8)$$

$$E_{device} = \frac{(M_{voc})_{in} - (M_{voc})_{out} - (^{X_{voc}}/_{28 \text{ lb/lb-mol CO}}) \times \{(M_{co})_{out} - (M_{co})_{in}\}}{(M_{voc})_{in}} \times 100\% \quad (9)$$

9.8.2 In all other situations, the control efficiency will be calculated using equation 10 or 11:

$$E_{device} = \frac{(M_{NMOC})_{in} - (M_{NMOC})_{out}}{(M_{NMOC})_{in}} \times 100\% \quad (10)$$

$$E_{device} = \frac{(M_{VOC})_{in} - (M_{VOC})_{out}}{(M_{VOC})_{in}} \times 100\% \quad (11)$$

9.9 Overall mass rate emissions shall include fugitive emissions according to equations 12 through 15.

9.9.1 Overall mass rate emissions of Non-Methane Organic Carbon shall include fugitive emissions as given by equations 12 and 13:

$$(M_{NMOC})_{fugitive} = (M_{NMOC})_{process} - (M_{NMOC})_{in} \quad (12)$$

$$(M_{NMOC})_{overall} = (M_{NMOC})_{out} + (M_{NMOC})_{fugitive} \quad (13)$$

9.9.2 Overall mass rate emissions of Volatile Organic Compounds shall include fugitive emissions as given by equations 14 and 15:

$$(M_{VOC})_{fugitive} = (M_{VOC})_{process} - (M_{VOC})_{in} \quad (14)$$

$$(M_{VOC})_{overall} = (M_{VOC})_{out} + (M_{VOC})_{fugitive} \quad (15)$$

9.10 Sample calculations.

Example 1: Incinerator Abating Cyclohexanone

Given:

Process data shows coating applied at a rate of 8 gallons per hour. Laboratory analysis of the coating indicates it contains 5 pounds VOC per gallon. The VOC is pure Cyclohexanone ($C_6H_{10}O$). The Incinerator Outlet flow is virtually the same as the Inlet flow.

Inlet measurements to the Afterburner:

Q_s = 1000 SDCFM
$(C_{TC})_{comb}$ = 22400 ppmv
$(C_{CO})_{comb}$ < 10 ppmv
$(C_{THC})_{comb}$ < 5 ppmv
C_{CO} = 250 ppmv
C_M = 150 ppmv
C_{CO2} = 10000 ppmv

Outlet measurements from the Afterburner:

C_{THC} = 200 ppmv
C_M = 100 ppmv
C_{CO} = 50 ppmv

Calculation of Afterburner Inlet parameters:

$C_{TC} = (C_{TC})_{Comb} + (C_{CO})_{Comb} + (C_{THC})_{Comb}$ (1)
$= 22400 - (<10) - (<5)$
C_{TC} = 22400 ppmv

$C_{NMOC} = C_{TC} - C_{CO2} - C_{CO} - C_M$ (2)
$= 22400 - 10000 - 250 - 150$
C_{NMOC} = 12000 ppmv

$$M_{NMOC} = \frac{12(\text{lb C/lb-mole } C_1) \times Q_o \times C_{NMOC} \times 60 \text{ (min/hr)}}{386.9 \text{ (SDCF/lb-mole)} \times 10^6\text{(ppm)}} \quad (4)$$

$= (12 \times 1000 \times 12000 \times 60)/(386.9 \times 10^6)$
M_{NMOC} = 22.3 lbs NMOC/hr

X_{VOC} = 16.33 lb VOC/lb-mol C_1 (From Worksheet IV-22)

$$M_{VOC} = \frac{X_{VOC} \times Q_o \times C_{NMOC} \times 60 \text{ (min/hr)}}{386.9 \text{ (SDCF/lb-mole)} \times 10^6\text{(ppm)}} \quad (5)$$

$= (16.33 \times 1000 \times 12000 \times 60)/(386.9 \times 10^6)$
M_{VOC} = 30.39 lb VOC/hr

Calculation of Afterburner Outlet parameters:

$C_{NMOC} = C_{THC} - C_M$ (3)
$= 200 - 100$
C_{NMOC} = 100 ppmv

$$M_{NMOC} = \frac{12(\text{lb C/lb-mole } C_1) \times Q_o \times C_{NMOC} \times 60 \text{ (min/hr)}}{386.9 \text{ (SDCF/lb-mole)} \times 10^6\text{(ppm)}} \quad (4)$$

$= (12 \times 1000 \times 100 \times 60)/(386.9 \times 10^6)$
M_{NMOC} = .19 lb NMOC/hr

$$M_{VOC} = \frac{X_{VOC} \times Q_o \times C_{NMOC} \times 60 \text{ (min/hr)}}{386.9 \text{ (SDCF/lb-mole)} \times 10^6\text{(ppm)}} \quad (5)$$

$= (16.33 \times 1000 \times 100 \times 60)/(386.9 \times 10^6)$
M_{VOC} = .25 lb VOC/hr

Calculation of Afterburner and Process parameters:

$$E_{device} = \frac{(M_{VOC})_{in} - (M_{VOC})_{out}}{(M_{VOC})_{in}} \times 100\%$$

$$= ((30.39 - .25)/30.39) \times 100\ \%$$

$$E_{device} = 99.1\ \%$$

$$(M_{NMOC})_{fugitive} = (M_{NMOC})_{process} - (M_{NMOC})_{in} \quad (12)$$

$$= (12/16.33) \times 40 - 22.3$$

$$(M_{NMOC})_{fugitive} = 7.09 \text{ lb NMOC/hr}$$

$$(M_{NMOC})_{overall} = (M_{NMOC})_{out} + (M_{NMOC})_{fugitive} \quad (13)$$

$$= .19 + 7.09$$

$$(M_{NMOC})_{overall} = 7.28 \text{ lb NMOC/hr}$$

$$(M_{VOC})_{fugitive} = (M_{VOC})_{process} - (M_{VOC})_{in} \quad (14)$$

$$= 40 - 30.39$$

$$(M_{VOC})_{fugitive} = 9.61 \text{ lb VOC/hr}$$

$$(M_{VOC})_{overall} = (M_{VOC})_{out} + (M_{VOC})_{fugitive} \quad (15)$$

$$= .25 + 9.61$$

$$(M_{VOC})_{overall} = 9.86 \text{ lb VOC/hr}$$

$$(m_{Ctg})_{overall} = \frac{(M_{VOC})_{overall}}{\text{Application Rate (gal/hr)}} \quad (7)$$

$$= \frac{9.86}{8.0}$$

$$= 1.23 \text{ lb VOC/gallon coating applied}$$

Example 2:

Given:

A source subject to Regulation 8, Rule 2, uses incineration to control non-methane organic carbon emissions. The process operates 20 hours per day.

Inlet Measurements to the Afterburner:

Q_o = 100 SDCFM
C_{TC} = 10300 ppmv
C_{CO2} = 500 ppmv
C_{CO} = 800 ppmv
C_M < 5 ppmv

Outlet Measurements from the Afterburner:

Q_o = 500 SDCFM
C_{THC} = 500 ppmv
C_{CO} = 400 ppmv
C_M = 100 ppmv

Calculation of Afterburner Inlet parameters:

$C_{NMOC} = C_{TC} - C_{CO2} - C_{CO} - C_M$ (2)

$= 10300 - 500 - 800 - (<5)$

$C_{NMOC} = 9000$ ppmv

$$M_{NMOC} = \frac{12(\text{lb C/lb-mole } C_1) \times Q_o \times C_{NMOC} \times 60 \text{ (min/hr)}}{386.9 \text{ (SDCF/lb-mole)} \times 10^6 \text{(ppm)}} \quad (4)$$

$= (12 \times 100 \times 9000 \times 60)/386.9 \times 10^6)$

$M_{NMOC} = 1.675$ lb NMOC/hr

$$M_{CO} = \frac{28(\text{lb CO/lb-mole}) \times Q_o \times C_{CO} \times 60 \text{ (min/hr)}}{386.9 \text{ (SDCF/lb-mole)} \times 10^6 \text{(ppm)}} \quad (6)$$

$= (28 \times 100 \times 800 \times 60)/(386.9 \times 10^6)$

$M_{CO} = .347$ lb CO/hr

Calculation of Afterburner Outlet parameters:

$C_{NMOC} = C_{THC} - C_M$ (3)

$= 500 - 100$

$C_{NMOC} = 400$ ppmv

$$M_{NMOC} = \frac{12(\text{lb C/lb-mole } C_1) \times Q_o \times C_{NMOC} \times 60 \text{ (min/hr)}}{386.9 \text{ (SDCF/lb-mole)} \times 10^6 \text{(ppm)}} \quad (4)$$

$= (12 \times 500 \times 400 \times 60)/386.9 \times 10^6)$

$M_{NMOC} = .372$ lb NMOC/hr

$$M_{CO} = \frac{28(\text{lb CO/lb-mole}) \times Q_o \times C_{CO} \times 60 \text{ (min/hr)}}{386.9 \text{ (SDCF/lb-mole)} \times 10^6 \text{(ppm)}} \quad (6)$$

$= (28 \times 500 \times 400 \times 60)/(386.9 \times 10^6)$

$M_{CO} = .868$ lb CO/hr

Calculation of Afterburner Efficiency:

$$E_{device} = \frac{(M_{NMOC})_{in} - (M_{NMOC})_{out} - (^{12 \text{ lb NMOC}}/_{28 \text{ lb CO}}) \times \{(M_{CO})_{out} - (M_{CO})_{in}\}}{(M_{NMOC})_{in}} \times 100\% \quad (8)$$

$$= \frac{(1.675 - .372 - (^{12}/_{28}) \times \{(.868 - .347))}{1.675} \times 100\%$$

$E_{device} = 64.5$ %

Emission Rate (lb/day) = Emission Rate (lb/hr) x Operating Time (hr/day)

$= 0.372$ lb/NMOC x 20 hr

$= 7.44$ lb NMOC/day

Example 3: Paint spray booth abated by a Charcoal Adsorber

Given:

Solvent fumes to the adsorber are primarily from Methyl ethyl ketone (MEK). Material and Safety Data Sheets (MSDS) indicate that other solvents are also present, but plant operating data show their contribution is unknown and less than 10 % of the total. The coating is 5.2 lb VOC/gal and 3.0 lb solids/gal. Regulations do not allow the use of a coating with a solvent content in excess of 3.5 lb VOC/gal unless emissions are controlled to an extent equivalent to that of a compliant coating. There is no water in the coating. No dilution of gas occurs through the adsorber bed.

Estimate:

X_{voc} = 18 lb/lb-mol (ref. sect 9.5 and Fig. IV-22)

Process Measurements:

Paint is drawn out of a one foot diameter drum at a rate of 3.0 inches per hour. 100 pieces per hour at 400 in^2 per piece are coated with paint. Quality assurance data indicates that there are 0.20 grams of solids per 4 in^2.

Inlet Measurements:

Q_o = 1000 SDCFM
C_{TC} = 2350 ppmv
C_{CO} < 10 ppmv
C_{CO2} = 350 ppmv
C_M < 5 ppmv

Outlet Measurements:

C_{THC} = 40 ppmv
C_M < 5 ppmv

Calculation of process parameters:

One way to calculate the volume of paint used is:

Paint Used = 3/12 ft/hr x π ($1ft^2$)/4 x 7.48 gal/ft^3
Paint Used = 1.469 gph

An alternative way to calculate paint usage would be:

Paint Used = (.2 g solids/4 in^2)x(lb/453.6 g)x(100 pieces/hr)x(400 in^2/piece)x(gal/3 lb solids)
Paint Used = 1.469 gph

$(M_{VOC})_{process}$ = 1.469 gph x 5.2 lb VOC/gal
$(M_{VOC})_{process}$ = 7.638 lb VOC/hr

Calculation of Adsorber Inlet parameters:

C_{NMOC} = 2000 ppmv

$$M_{voc} = \frac{X_{voc} \times Q_o \times C_{NMOC} \times 60 \text{ (min/hr)}}{386.9 \text{ (SDCF/lb-mole)} \times 10^6 \text{(ppm)}} \quad (5)$$

$= (18 \times 1000 \times 2000 \times 60)/(386.9 \times 10^6)$

M_{voc} = 5.582 lb VOC/hr

Calculation of Adsorber Outlet parameters:

$C_{NMOC} = C_{THC} - C_M$ (3)

C_{NMOC} = 40 ppmv

$$M_{voc} = \frac{X_{voc} \times Q_o \times C_{NMOC} \times 60 \text{ (min/hr)}}{386.9 \text{ (SDCF/lb-mole)} \times 10^6 \text{(ppm)}} \quad (5)$$

$= (18 \times 1000 \times 40 \times 60)/(386.9 \times 10^6)$

M_{voc} = .112 lb VOC/hr

$(M_{voc})_{fugitive} = (M_{voc})_{process} - (M_{voc})_{in}$ (16)

$= 7.638 - 5.582$

$(M_{voc})_{fugitive}$ = 1.056

Calculation of Adsorber Bed parameters:

$$E_{device} = \frac{(M_{voc})_{in} - (M_{voc})_{out}}{(M_{voc})_{in}} \times 100\% \quad (11)$$

$= (5.582 - .112)/5.582 \times 100\ \%$

E_{device} = 98.0 %

Calculation of Emissions per gallon equivalent coating: (ref. Fig. IV-23)

Line A	= 0	There is no water in this coating
Line B	= 0	There are no exempt volatiles in this coating
Line C		Leave blank. This is not listed on the MSDS cited in this example
Line D	= 0	No water
Line E	= 0	No exempt volatiles
Line F	= .671	5.2 lb VOC per 8.2 lb Coating
Line G	= 7.36	There is no PNRS, therefore assign it this default value
Line H	= 6.885	MEK has a known density
Line I	= 8.2	Specified operating condition
Line J	= 5.2	F/(1/I - D/8.34 - E/G)
Line K	= 1.168	Exhaust of .112 plus fugitive of 1.056 From Source Test data and calculations
Line L	= 3.5	Specified in this example. Actual value will depend on which regulation applies
Line M	= .245	1 - J/H
Line N	= 1.469	Calculated above
Line P	= 1.469	(1 - A - B) * N
Line Q	= .492	1 - L/H
Line R	= .359	P x M

Line S = .731 R/Q
Line T = 1.60 K/S

$(m_{EQCtg})_{overall}$ = 1.60 lb VOC/gal Equivalent Coating

Example 4: Petroleum Dry Cleaner

Given:

Petroleum Dry Cleaner washes two 10 lb loads per hour. The solvent used has an average molecular weight per carbon of 14. Gases are vented to a solvent recovery dryer.

Outlet Measurements:

Q_o = 1000 SDCFM
C_{THC} = 100 ppmv
C_M < 5 ppmv

Calculation of Recovery Dryer Exhaust:

$$M_{VOC} = \frac{X_{VOC} \times Q_o \times C_{NMOC} \times 60 \text{ (min/hr)}}{386.9 \text{ (SDCF/lb-mole)} \times 10^6 \text{(ppm)}} \quad (5)$$

$= (14 \times 1000 \times 100 \times 60)/(386.9 \times 10^6)$
M_{VOC} = .217 lb VOC/hr

M_{VOC} hr/100 Kg Clothes = M_{VOC}/(2 load/hr x 10 lb/load) x (5/5) x $(^{Kg/lb}/_{Kg/lb})$
$= 5 \times M_{VOC}$ $(^{Kg}/_{lb})$(hr) 100 Kg Clothes
M_{VOC} hr/100 Kg Clothes = 1.085 Kg VOC/100 Kg clothes

10. Reporting

10.1 Results shall be reported as shown in Figure IV-24.

11. Nomenclature

C_{CO} [=] Concentration of Carbon Monoxide, ppmv

C_{CO2} [=] Concentration of Carbon Dioxide, ppmv

C_M [=] Concentration of Methane, ppmv

C_{NMOC} [=] Concentration of Non-Methane Organic Carbon, ppmv

C_{TC} [=] Concentration of Total Carbon, ppmv

C_{THC} [=] Concentration of Total Hydorcarbons, ppmv

E_{device} [=] Efficiency with which NMOC or VOC emissions are abated by the Control Device on a mass basis, %

M_{CO} [=] Mass flow rate of CO, lbs/hr

M_{NMOC} [=] Mass flow rate of NMOC, lbs/hr

M_{VOC} [=] Mass flow rate of VOC, lbs/hr

Q_o [=] Volumetric Flowrate, SDCFM

X_{VOC} [=] Molecular weight of VOC per Carbon, lb VOC/lb-mol C_1:

$(C_{CO})_{comb}$ [=] Apparent CO concentration measured at combustor. Non-zero only when combustor is less than 100% efficient, ppmv

$(C_{TC})_{comb}$ [=] Apparent CO_2 (Total Carbon) measured at combustor. $(C_{TC})_{comb}$ is less than C_{TC} only when combustor is less than 100% efficient, ppmv

$(C_{THC})_{comb}$ [=] Apparent THC measured at combustor. Non-zero only when combustor is less than 100% efficient, ppmv

$(m_{Ctg})_{overall}$ [=] Mass flow rate of VOC, including fugitives, exhausted from a coating operation relative to the quantity of coating applied, lb/gal

$(m_{EQCtg})_{overall}$ [=] Mass flow rate of VOC, including fugitives, exhausted from a coating operation relative the quantity of equivalent coating used had a compliant coating been used in place of the actual coating, lb/gal

$(M_{CO})_{in}$ [=] Mass flow rate of CO at the inlet of a given abatement device, lb/hr

$(M_{CO})_{out}$ [=] Mass flow rate of CO at the outlet of a given abatement device, lb/hr

$(M_{NMOC})_{fugitives}$ [=] Mass flow rate of NMOC attributed to fugitive emissions from a given process, lb NMOC/hr

$(M_{NMOC})_{in}$ [=] Mass flow rate of NMOC at the inlet of a given abatement device, lb NMOC/hr

$(M_{NMOC})_{out}$ [=] Mass flow rate of NMOC at the outlet of a given abatement device, lb NMOC/hr

$(M_{NMOC})_{overall}$ [=] Mass flow rate of NMOC attributed to fugitive and exhausted emissions from abatement devices associated with a given process, lb NMOC/hr

$(M_{NMOC})_{process}$ [=] The calculated usage rate of NMOC based on process data, lb NMOC/hr

$(M_{VOC})_{fugitives}$ [=] Mass flow rate of organics as VOC attributed to fugitive emissions, lb VOC/hr

$(M_{VOC})_{in}$ [=] Mass flow rate of organics as VOC at the inlet of a given abatement device, lb VOC/hr

$(M_{VOC})_{out}$ [=] Mass flow rate of organics as VOC at the exhaust of a given abatement device, lb VOC/hr

$(M_{VOC})_{overall}$ [=] Mass flow rate of organics as VOC attributed to fugitive and exhausted emissions from abatement devices associated with a given process, lb VOC/hr

$(M_{VOC})_{process}$ [=] The calculated usage rate of organic compounds based on process data, lb VOC/hr

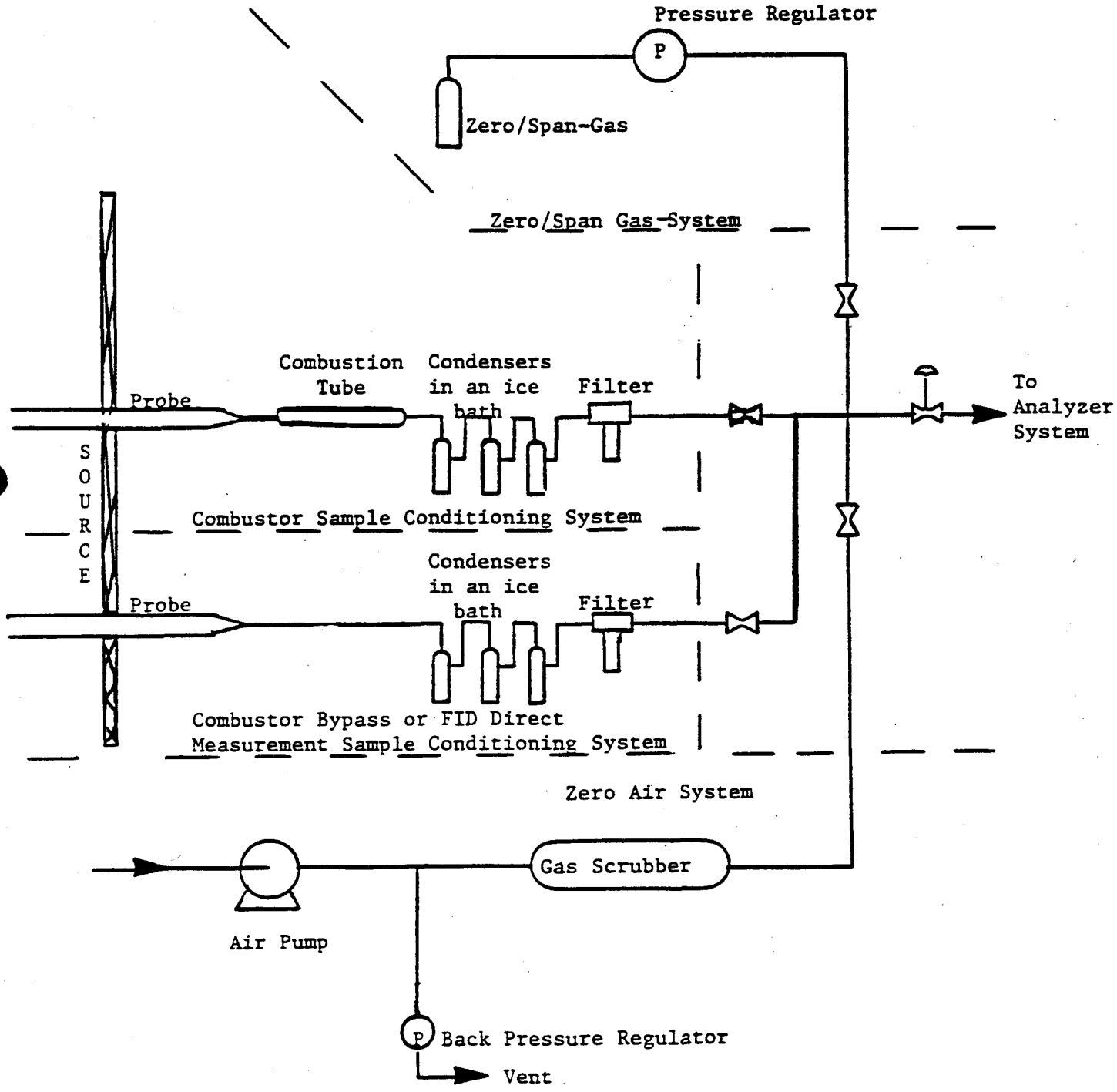


Figure IV-18: Sample Conditioning, Zero Air, Zero/Span-Gas Systems

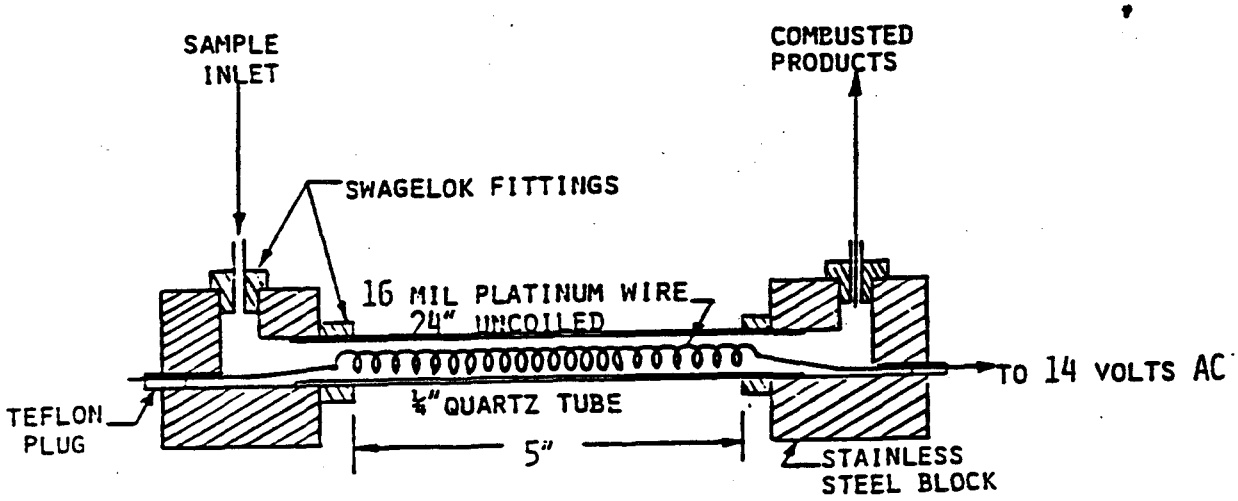
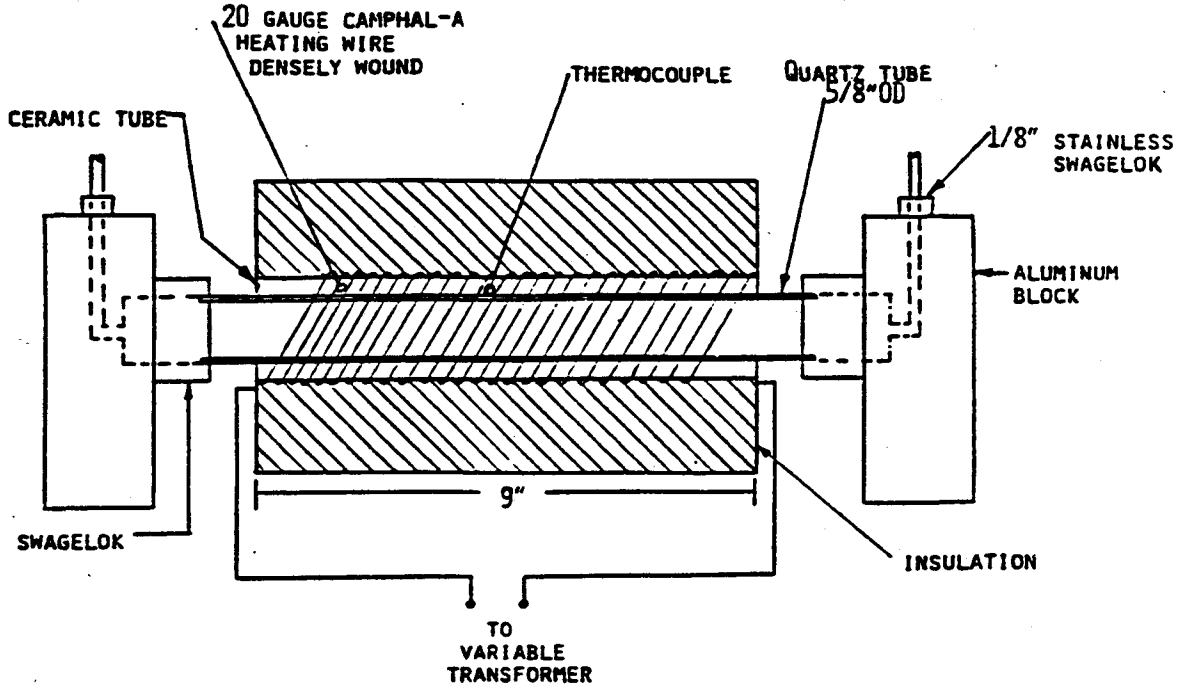


Figure IV-19: Internally Heated Combustion Tube



NOTE: FURNACE OPERABLE TO 1100C

Figure IV-20: Externally Heated Combustion Tube

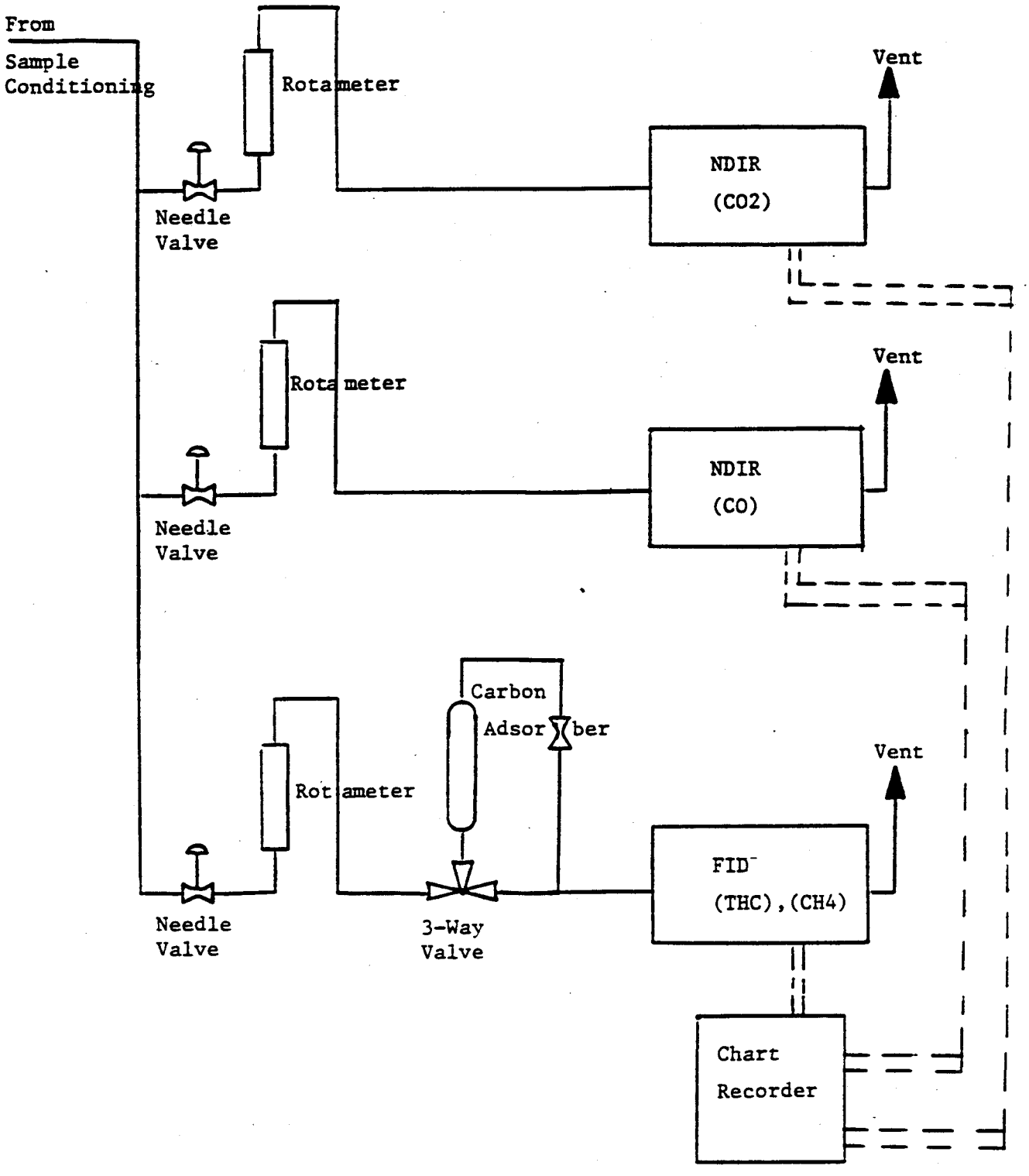


Figure IV-21A: Analyzer Manifold for ST-7

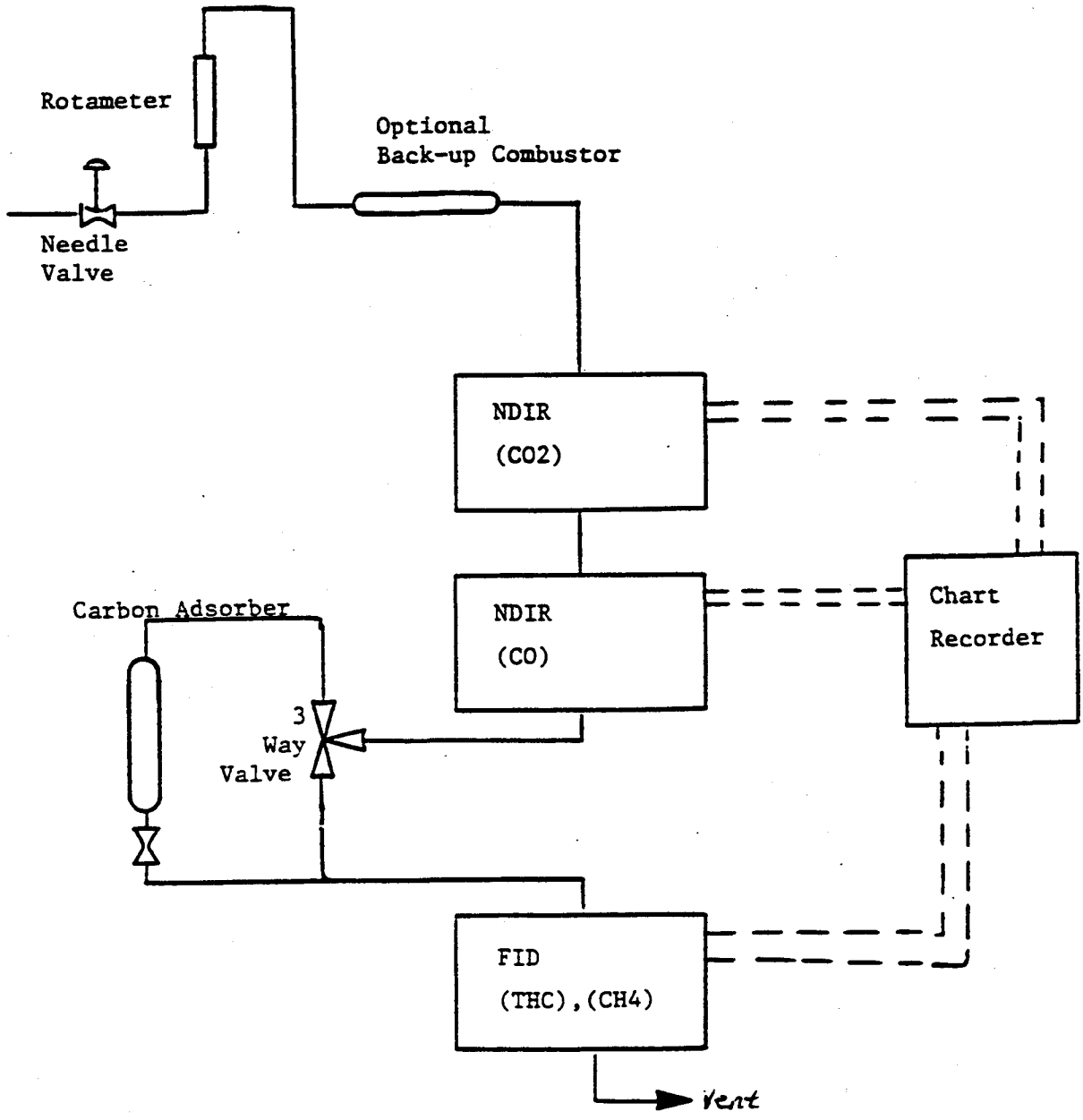


Figure IV-21B: Analyzer Manifold for Combustor of less than 100% Efficiency

Row Number	a	b	c	d	e	f	g	h
Column Number	Weight of Solvent *	Weight fraction of each Component $a \div a_{total}$	Molecular Weight of each Component **	Number of Carbons Per Component **	Molecular Weight Per Carbon c ÷ d	Molecular Weight fraction for each Component b x e	VOC Density (lb/gal) **	VOC Density Per Component b x g
A								
B								
C								
D								
etc.								
Total		1.000						

Average Molecular Weight per Carbon (from total sum f) _____

Average Solvent Density (from total sum h) _____

* From Laboratory Analysis or Coating Data Sheet
** From Reference Material

Figure IV - 22: Molecular Weight and VOC Density Calculation Worksheet

Equivalent Coatings

Worksheet

A) Volume fraction H_2O*, gal H_2O/gal CTG _____

B) Volume fraction PNRS*, gal PNRS/gal CTG _____

C) Volume fraction VOC*, gal VOC/gal NECTG _____

D) Weight fraction H_2O*, lb H_2O/lb CTG _____

E) Weight fraction PNRS*, lb PNRS/lb CTG _____

F) Weight fraction VOC*, lb VOC/lb CTG _____

G) Density of PNRS*, lb PNRS/gal PNRS
If unknown use 7.36 _____

H) Assumed solvent density, lb VOC/gal VOC
If unknown use 7.36 _____

I) Coating density*, lb CTG/gal CTG _____

J) Lb VOC/gal NECTG $J = \frac{H \times C}{1 - A - B}$ _____

or

$$J = \frac{F}{\frac{1}{I} - \frac{D}{8.34} - \frac{E}{G}}$$

K) Emission rate **, lb VOC/hr, includes fugitives _____

L) Regulation limit, lb VOC/gal EQCTG _____

M) Gal solids/gal NECTG $M = 1 - J/H$ _____

N) Application Rate **, gal CTG/hr _____

P) Gal NECTG/hr $P = N(1 - A - B)$ _____

Q) Gal solids/gal EQCTG $Q = 1 - L/H$ _____

R) Gal solids/hr $R = P \times M$ _____

S) Gal EQCTG/hr $S = R/Q$ _____

T) Lb VOC emitted/gal EQCTG, $(m_{EQCtg})_{overall}$ $T = K/S$ _____

CTG - **Coating as applied**

PNRS - **photochemically non-reactive solvent**

NECTG - **non-exempt coating (excludes water and PNRS)**

EQCTG - **equivalent coating**

* **From coating data**

** **From source test data**

Figure IV - 23: Equivalent Coatings Worksheet

SUMMARY OF
SOURCE TEST RESULTS

SOURCE INFORMATION

Firm Name and Address	Firm Representative and Title Phone No.	Source Test Engineers
	Source: Operates hr/day & days/yr	

Operating Parameters:

Source Test Results and Comments:

METHOD:	TEST	RUN A IN*	RUN A OUT**	RUN B IN	RUN B OUT	RUN C IN	RUN C OUT	AVERAGE IN	AVERAGE OUT
	Run Time, minutes								
	Sample point temperature, ^{o}F								
ST-17	Flow rate, SDCFM								
ST-14	O_2, dry basis, %								
ST-5	CO_2, dry basis, %								
ST-6	CO, dry basis, %								
ST-23	H_2O, actual basis, %								
ST-7	Non-methane organic carbon, as C_1								
	a) ppm (dry)								
	b) lb/hr								
ST-7	Volatile Organic Compounds, as C_1								
	a) ppm (dry)								
	b) lb/hr								
ST-6	Carbon monoxide								
	a) ppm (dry)								
	b) lb/hr								
ST-7	Abatement Efficiency, %								

* Control device inlet
** Control device outlet

Figure IV - 24: Summary of Source Test Results Report Form